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IMPERIAL GOVERNMENT RAILWAYS OF JAPAN

(ALSO PRIVATE AND LIGHT RAILWAYS IN JAPAN PROPER)

MAR 2 1916

Annual Report

FOR

THE YEAR ENDING MARCH 31st,

1912

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IMPERIAL GOVERNMENT RAILWAYS OF JAPAN

(ALSO PRIVATE AND LIGHT RAILWAYS IN JAPAN PROPER)

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Annual Report

FOR

THE YEAR ENDING MARCH 31st,

1912

J271
1911/12 -

WEIGHTS, MEASURES AND MONEYS, WITH ENGLISH, AMERICAN, FRENCH AND GERMAN EQUIVALENTS.

JAPAN	GREAT BRITAIN	UNITED STATE OF AMERICA	FRANCE	GERMANY
Ri.	2.44030 Miles.	2.44029 Miles.	3.92727 Kilomètres.	3.92727 Kilometer.
Shaku=.1 *Jo*=10 *Sun* =100 *Bu.*	=1. ft. 2 $\frac{11}{12}$ inches.	=1. ft. 2 $\frac{11}{12}$ inches.	=.30303 Mètre.	=.30303 Meter.
Ken=6 *Shaku*=60 *Sun.*	=7. ft. 5 $\frac{1}{2}$ inches.	=7. ft. 5 $\frac{1}{2}$ inches.	=1.81818 Mètre.	=1.81818 Meter.
Square *Ri.*	5.95505 Square Miles.	5.95505 Square Miles.	15.42347 Kilomètres Carrés.	15.42347 Quadrat-kilometer.
Chō=10 *Tan*=100 *Se* =3,000 *Tsubo.*	2.45064 Acres.	2.45064 Acres.	99.17355 Ares.	99.17355 Ar.
Tsubo.	3.95369 Square Yards.	3.95369 Square Yards.	3.30579 Centiares.	3.30579 Quadratmeter.
Koku=10 *To*=100 *Shō.* =1,000 *Go.*	4.96005 Bushels.	47.65389 Gallons. (Liquid) 5.11902 Bushels. (Dry)	1.80391 Hectolitres.	1.80391 Hektoliter.
Kwan=1,000 *Momme.*	8.26733 ℔s. (Avoir.) 10.04711 „ (Troy.)	8.26733 ℔s. (Avoir.) 10.04711 „ (Troy.)	3.75000 Kilogrames.	3.75000 Kilogramm.
Kin=160 *Momme.*	1.32277 ℔s. (Avoir.) 1.60754 „ (Troy.)	1.32277 ℔s. (Avoir.) 1.60754 „ (Troy.)	0.60000 Kilograme.	0.60000 Kilogramm.
Yen=100 *Sen*=1,000 *Rin.*	2$^{s.}$ 0$^{d.}$582.	0.4984 Dollar.	2.583 Francs.	2.0924 Mark.

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(For the Year Ending March 31st, 1911.)

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IMPERIAL GOVERNMENT RAILWAYS OF JAPAN

ANNUAL REPORT

FOR

THE YEAR ENDING MARCH 31st, 1912.

GENERAL RESUME SUBMITTED BY THE PRESIDENT TO THE MINISTER-PRESIDENT OF STATE.

I have the honour to submit herewith the following report on the general working of the Imperial Government Railways of Japan and private railways in Japan proper for the year ending March 31st, 1912. The total mileage of railways open to traffic at the end of the year under review was 5,607 miles, of which 5,044 miles were represented by the Imperial Government Railways and 563 miles by private railway companies. The train mileage totalled 52,484,852 miles, the number of passengers carried 179,905,775 and the weight of goods hauled 32,320,718 tons, while the number of passengers carried one mile aggregated 3,592,008,640 and the weight of goods hauled one mile 2,388,365,499 tons. The total receipts from operation were 101,012,464 yen, of which 54,021,146 yen came from coaching and 46,991,318 yen from goods service.

The returns for the State lines are as follows:—

The average mileage of railways open to traffic during the year under review was 4,896.8 miles for passenger traffic and 4,946.7 miles for goods, an increase over the preceding year of 180.9 miles in the former and 182.5 miles in the latter. The train mileage aggregated 48,730,784 miles, being 3,960,066 miles more than in the preceding year. The number of passengers carried totalled 151,077,779, and the weight of goods moved 29,337,054 tons, an increase of 12,448,073 in the former and 3,855,186 tons in the latter, as compared with the preceding year, while the total number of passengers carried one mile were 3,382,586,411 and the aggregate weight of goods moved one mile 2,347,871,475 tons, being 343,849,445 and 221,037,002 tons more than the respective figures for the preceding year.

The receipts from operation were 50,674,259 yen for the coaching service, 45,675,693 yen for goods and 2,099,298 yen for shipping and 98,449,250 yen for the total, the total being 10,154,994 yen more than in the preceding year's figures.

In reviewing the results of traffic in general, it is to be noted that the seasonable weather that prevailed during the spring time resulted in a large volume of tourist traffic consisting chiefly of pleasure-seekers on a visit to places noted for cherry-blossoms and also to those of scenic beauty or historical interest. Then the religious services held at the Chion-in temple and the East and the West Honganji temples in Kyoto in commemoration of the anniversary of the demise of their respective

founders drew to the city quite a phenomenal number of pilgrims from all parts of the Empire. With the through service opened on the Central line, the communication between the Kansai districts on the one hand and Shinano and Echigo provinces on the other was facilitated to a considerable extent and in consequence pilgrimage to the celebrated old temple of Zenkoji, Shinano province, as well as to other places were much in evidence on the line. Visitors to summer resorts and to sea-bathing places compared well with the record of the average year. It is true that the damage due to the inclemency of weather paralysed train services at several places to a more or less extent, but, when compared with that suffered in the preceding year, the damage may be said to have been insignificant. The *Nihyakutoka* and the *Nihyakuhatsuka* (the 210th and the 220th days of the calender year) which are proverbially regarded in Japan as critical season for the autumnal crop, passed off calmly, and this encouraged tradal activity in the provinces and in turn gave rise to a number of tourist parties from the farming districts. In November a special grand manœuvre was conducted in Kyushu, while toward the end of the year under review the religious services was held at the West Honganji temple in Kyoto and the festivals celebrated at the shrine of Kompira, Sanuki province, in commemoration of the tercentenary of the establishment of its Holy of Holies. These as well as others served as an occasion of lively passenger business along all the lines which attended to the transport of party travellers on the way to the aforementioned seats.

Adverting, next, to goods traffic, thanks to the favourable tone of the market maintained from the preceding year the brisk movement of general commodities was kept on throughout the year. The booking of timber, stone, fertilizers, raw or salt fish, in particular, showed quite an improvement on the figures in the preceding year. As a result of the substantial rise of the quotations the delivery of rice produce in the North Eastern districts was quite reassuring in quantity, while the traffic in coal indicated greater activity than in the preceding year, with the exception of Hokkaido where a very dull booking was witnessed in the earlier months of the year. The inauguration of wagon ferry service across the Strait of Shimonoseki gave an impetus to the phenomenal growth of through goods traffic between the Main Island and Kyushu. The favourable condition was kept up well into 1912 through the speculative despatch of goods undertaken in anticipation of the busy transport of party pilgrims to Shinto shrines and Buddhist temples which may possibly come to tax the railway lines with the advent of spring time. From what has been enumerated, it may be noted that the general results of traffic during the year under review were on the whole satisfactory both in passenger and goods business.

To give next a list of the more important arrangements made for traffic during the year, it may be stated that the wagon ferry service was inaugurated between Shimonoseki and Moji on October 1st, 1911, so that through goods between the two leading islands might be conveyed in wagons across the Strait. Parcels offices were opened at a number of places in Kyoto, Osaka, Kobe, Okayama, Hiroshima, Himeji and Akashi in order to attend to the checking of parcels. Further a railway office was opened at Hiroshima on June 20th, while the local delivery service was inaugurated at some leading stations and on July 1st a sleeping car service was established for the first time on the Hakodate-Asahigawa trains.

From September 1st, a further additional reduction was effected on the freight of cocoon as material of silk and *habutae* in order to foster the export trade in conformity with the traditional policy of the Empire, while from November 1st a refund of 20 per cent. was granted to coal billed for oversea ports.

Fish, living or raw, which under the existing Tariff belongs to the category of 'high class' on

account of the careful handling and prompt delivery it requires, was given on November 1st a special reduction of freight, when consigned in wagon loads, the rate variable between 25 and 40 per cent. according to the distance to be covered, the reason for the reduction being that with the recent development of marine industry, this staple edible of the Japanese began to be consigned for delivery in ever increasing bulk.

Through traffic was opened for passengers and their luggage between the Tientsin, Shanghai, Dairen and Keelung routes of the Nippon Yusen Kaisha on the one hand and on the other Shimbashi and other leading stations on the State lines. A similar service was opened for passengers and their luggage and wagon goods with the new Ashio Railway Co.' and the Shimabara Railway Co.' lines and the Noda line under management of the Chiba Prefecture; for passengers with the Seibi Railway and the Ikao, the Takasaki and the Maebashi Electric Railway; for passengers and their luggage or wagon goods with the Ishizaki Steamship Co.'s Takahama-Mitsuhama-Onomichi line, with the Hotta & Co.' Kabagori-Toba line, and with the Osaka Shosen Kaisha's Sakai-Shimonoseki line. In consequence of the extension of the Oita line, the junction station at Hiji hitherto opened to the through passenger traffic with the Osaka Shosen Kaisha's Bungo-Hiuga line was superseded by Nishi Oita station, while at the same time the sale of through water-and-rail tickets was extended so as to cover Uwajima, Yawatahama and a few other ports in the Island of Shikoku. Then guide books and illustrated posters of all descriptions were issued from time to time and distributed among the public at large in order to give them information as to the fares, rates and other rules in force on the Railways, and also to introduce to them places of note along the lines.

During the year working expenses amounted to 12,254,622 yen, an increase of 941,263 yen over the preceding year.

The average length of lines worked for steamer service in operation during the year under review was 371.8 nautical miles. The number of steamers on stock at the end of the year was 28 representing a gross tonnage of 19,571 tons, of which 5 were chartered vessels with a gross tonnage of 9,939 tons. The number of trips made during the year was 37,437. The expenses incurred by the shipping service during the year amounted to 1,518,702 yen, 137,580 yen more than in the preceding year.

During the year under review locomotive mileage totalled 57,972,193 miles, car mileage 964,921,502 miles, the amount of coal consumed for running purposes 2,284,521,270 *kin* inclusive of 23,383,021 *kin* of petroleum dregs as converted at one *sho* of oil = 5.4 *kin*, representing 6,074,556 yen in value, while the amount of oil consumed aggregated 13,995 *koku*.

Compared with the preceding year's figures, these items show an increase of 5,023,042 miles in locomotive mileage, of 70,508,263 miles in car mileage, of 254,943,478 *kin* in the amount of coal consumed with a decrease of 212,496 yen in value and an increase of 1,683 *koku* in oil consumed. Then the percentage of the foregoing items per 100 locomotive miles works out for coal at 3,941 *kin* representing 10.478 yen, an increase of 108 *kin* or 2.8 per cent. in amount and a decrease of 1.396 yen or 11.8 per cent. in value and for oil at .0241 *koku*, an increase of .0008 *koku* or 3.4 per cent., while the percentage of the same item per 1000 car mileage works out at 2,368 *kin* representing 6.295 yen, an increase of 99 *kin* or 4.4 per cent. in amount and a decrease of .734 yen or 10.4 per cent.

Rolling stock returns existing at the end of the year under review comprised 2,305 locomotives, 6 Imperial carriages, 5,887 passenger carriages and 37,952 goods wagons, showing an increase over the preceding year of 74 locomotives, 229 passenger carriages and 3,202 goods wagons.

The equipment of rolling stock and improvement carried out thereon comprised 134 carriages and 3,155 wagons provided with new axles and wheels; 772 carriages equipped with electric lights and 513 carriages with Pinch's gas lights, 42 locomotives with steam brakes, 556 goods wagons with side brakes, 56 locomotives and 795 passengere carriages with steam heating apparatus.

Modifications were made to a number of vehicles, those to be specially remarked being 827 7-ton open trucks reconstructed into 9-ton and 1,701 8-ton iron coal trucks into 9-ton, the fire grate replaced by the rocking grate for 116 locomotives, the alarming apparatus fitted in 56 carriages and 170 bogie trucks provided with higher sides. Then eight of 2,500 type were converted into two of 3,500 type, three of 2,700 type and two of 2,900 type locomotives, while 7 passenger carriages and 34 goods wagons were scrapped, 13 locomotives given over and one locomotive received by transfer. As to the returns of new stock, domestic manufacture comprised 16 locomotives, 262 passenger carriages (inclusive of 102 made in the Railway Works), and 2,273 goods wagons (inclusive of 935 made in the Railway Works), while the foreign purchase was represented by 60 locomotives and 10 electric locomotives.

Rolling stock expenses incurred during the year amounted to 18,530,243 yen, being 372,654 yen more than in the preceding year.

The length of communication wires extended 17,448 *ri* with 2,065 sets of telegraph, 6,889 sets of telephone and 2,422 sets of block apparatus, while the number of messages accepted at 1,353 stations so equipped, totalled 44,427,804, inclusive of 6,310,814 of public telegrams for which the Railways received 228,334 yen by way of charges. The generating and transformer stations numbered 27 representing 5,942 h.p., 3,821 k.w. in the capacity of generators and 2,393 k.w. in the capacity of transformers, while the length of power cables measured 296 *ri* with motors in use at 42 places developing 4,388 h.p. Then the number of electric cars were 69, the mileage travelled by them aggregating 3,820,104 miles. The electric lighting apparatus comprised 35,0007 glow lamps or 55,045 as reduced to 10 candle power basis, 855 are lamps or 1,074 as reduced to 1000 candle power basis. There were, besides, 23,064 electric lamps used in trains, representing 261,744,076 c.p. The total volume of current consumed amounted to 11,455,705 k.w.h. of which 7,302,715 k.w.h. were supplied from the railway stations.

During the year expenses on account of electric operation and service amounted to 1,739,418 yen, an increase of 335,496 yen as compared with the preceding year.

The revenue account for the year under review shows 102,785,091 yen for revenue, 82,282,927 yen for expenditure and 250,000 yen on account of the balance of the light railways subsidy fund, leaving a balance of 20,252,164 yen. After deducting rebates and advances of all description, expenses on account of supervision, surveying, and interest charges for additional expenses, there are left 100,179,818 yen for revenue and 45,768,255 yen for expenditure, leaving a net profit amounting to 54,411,563 yen. Compared with the preceding year's figures, receipts increased by 10,843,226 yen, working expenses by 2,518,883 yen and profit by 8,324,343 yen. The percentage of working expenses to receipts from operation stands at 45.7 per cent., a decrease of 2.7 per cent. as compared with the preceding year.

As regards the reserve fund account the receipts for the year were 1,609,310 yen, which were carried forward to the next year's account, there being no disbursement charged to the same account.

In the railway and workshop account, the profit amounted to 35,125,575 yen and the loss 34,840,064 yen, leaving a balance of 285,511 yen.

The capital consolidated from the inception of the open lines to the end of the preceding year aggregated 823,196,507 yen, to which was added 49,033,491 yen in the year under review, bringing

the total to 872,229,998 yen, of which 185,079,776 yen were represented by special capital and 687,150,222 yen by the borrowed.

The purchase of railway stores totalled 41,072,688 yen, consisting of 33,745,141 yen for domestic supplies and 7,327,547 yen for the foreign. Compared with the preceding year, the domestic supplies increased by 5,704,963 yen, the foreign by 797,360 yen and the total by 6,502,323 yen.

In maintenance work numerous provisions were made where necessary throughout the system with a view to maintaining the track in efficient condition commensulate with the increasing traffic. To be particular, the resleepering, repair of roadbed, repainting of iron girders, replacement of worn-out rails and other matters relative to ordinay maintenance work were assiduously attended to, while on the other hand extensive repairs and alterations were carried out to permanent way and buildings in connection with the additional and improvement works. Then the hurricanes, torrential downpours and washaways which repreatedly visited the country since June, 1911, though less heavy in extent than in the preceding year, seriously affected the Shin-Etsu, the Central, the Tokaido, the North Eastern, the Joban, the O-U and the Gan-Etsu lines, while in July, 1911 the Tokaido line was breached at several places by a visit of tidal wave. The repair work, both emergency and permanent, entailed by these natural calamities as well as the remaining portion of the work incidental to the floods in the previous year, involved a large amount of expenditure. At the same time it may be noted that in carrying out these works the best attention was paid to keeping down expenses as well as to ensuring the satisfactory repairs. The amount of expenses debited to the maintenance work this year was 10,156,710 yen, an increase of 591,017 yen over the preceding year.

In additional work the policy of gradually securing the facilities adequate to cope with the increasing traffic was pursued, and to that end in view, attention was directed to the laying of additional sidings in station yards, enlargement and repair of buildings and structures and betterment of signalling and other safety appliances. The construction of a new station on the Sekiyama-Arai section, Shin-Etsu line, continued from the preceding year, was completed, while various provisions were made in order to ensure a higher efficiency of both track and station accommodation. The amount of expenditure debited to the additional work was 1,843,102 yen, an increase of 184,576 yen over the preceding year.

To mention the more important items of improvement work, especially the betterment and extension of tracks and stations, excellent progress was made with the duplication work between Ueno and Nippori, North Eastern main line, as well as that between Kita Senju and Kameari, Joban line, traffic service being opened on the Kita Senju-Kameari section of the latter line. The electrification of the section between Yokokawa and Karuizawa, Shin-Etsu line, was nearing completion. In Tokaido line, the betterment of tracks and stations on the Shimbashi-Hodogaya section, continued from the preceding year, was well forward, but remained incomplete by about 5 parts at the end of the year, while as regards the remaining portion of the duplication of the Tokaido line, the laying of girders on the Oigawa bridge on the Shimada-Kanaya section was in progress, the foundation work for the Tenryugawa bridge on the Shimada-Kanaya section taken in hand, and the Kisogawa bridge on the Kisogawa-Gifu section practically completed. The Nagoya water-and-rail "Link" and connected works were completed and opened for traffic on May 1st, 1911 with the exception of the Shiratori spur line. As for the Shinagawa reclamation and extension work, a substantial start was made with the reclamation of the shore during the year, while the purchase of land was completed for the construction of the new Oi Works, the ground-making of the latter Works being proceeded in connection with the reclamation of the Shinagawa shore. The construction of the Hamamatsu Works was gradually nearing completion. The water-and-rail "Link" and connected works on the Kanatsu-Mikuni section, Hokuroku

line, was brought to completion after so much delay, and was opened for traffic on December 15th, 1911. A start was also made with the purchase of land for the duplication work between Nakanogo and Tsuruga. Duplication work between Mitsuishi and Yoshinaga, San-yo line, continued from the preceding year, was completed, while as regards the duplication work between Tsu and Yamada, the Matsusaka-Tokuwa and the Suzukaibashi-Yamada sections were completed and opened for traffic. In Kagoshima line, the duplication between Orio and Ongagawa, started in the preceding year, was completed in greater parts, while traffic facilities on the Moji-Ozato section demanded by the introduction of wagon ferry service across the Strait of Shimonoseki, were brought to a finish. The laying of the Miyajidake branch (Yamamoto-Kishidake), Nagasaki line, was completed and opened for traffic on January 17th, 1912. The duplication between Nogata and Ida, Chikuho line, was completed and opened for traffic, while as regards the work on the Shippu branch, the purchase of land was started in the year and finished in greater parts. In Hakodate line, the remaining portion of the duplication between Temiya and Iwamizawa, i.e. the work on the Asazato-Zenibako section, was completed, with which the through service was opened on the whole line. As regards the Temiya reclamation and extension works, the resumption of land was finished within the preceding year, while the construction of the elevated coaling pier and the approaches thereto as well as the coal-staith was brought to completion during the year under review, the other works being still in progress. The Muroran reclamation and extension works, Muroran line, was completed within the preceding year as regards the reclamation of the eastern part, while the reclamation of the western part was taken in hand together with the provision of necessary facilities on the resumed part, of which the elevated coaling pier and the coal-staith were nearing completion. Fair progress was made with the duplication work between Oiwake and Yubari, especially the Shimizuzawa-Yubari section. The construction of the Central station on the Shinsenza-Eirakucho section, Tokyo Street Line, was well forward, and the framework of the main building being completed, the walling, flooring and roofing works were taken in hand. The section between Ochanomizu and Manseibashi was completed in greater parts, and the electric car service was extended up to Manseibashi station. The purchase of land was taken in hand for the Central Station-Ueno and the Kajibashi-Manseibashi sections, and finished as far as Kandagawa for the former section and completely for the latter.

Then the new stations (exclusive of those built consequent upon the completion of branches) erected during the year comprised 3 on the North Eastern main line, 2 on the O-U line, one on each of the Shin-Etsu, the Hokuroku, and the San-yo lines, 2 on the Hakodate line, and one on the Kushiro line, while the number of block stations newly constructed was one on each of the North Eastern and the O-U lines, 6 on the Tokaido line, one on each of the Shin-Etsu and the Kansai lines. The purchase of land was made for the construction of a new coaling pier at a place between Moji and Ozato, Kagoshima line. The purchase of land was also made and works commenced in connection with the extension of the following stations, viz:—

Tabata, Ichinoseki, Omiya, Koriyama and Ikebukuro on the North Eastern line, Kozu, Yamakita, Shimada, Toyohashi, Maibara, Handa, Baba, Kyoto, Sumiyoshi, Naoetsu on the Shin-Etsu line, Hyogo and Shimonoseki on the San-yo line, Yokkaichi, Kameyama and Oji on the Kansai line, Moji, Kurume Hainuzuka, Kami-Kumamoto and Nishi-Karatsu on the Nagasaki line and Ida on the Chikuho line. As regards the permanent way improvement, the shifting of track centres, reduction of gradients, and the construction of additional bridges and renewal thereof were undertaken simultaneously with the repair works which were necessitated by the damages from the floods along the North Eastern, the O-U, the Takasaki, the Shin-Etsu, the Tokaido, and the Central lines, while a good deal of regrading

was carried out on the Hokkaido lines. The replacement of light rails by heavier metals, the strengthening of the tracks with additional sleepers, and improvement of the roadbed were carried out throughout the system, while as regards the betterment of bridge girders, steps were taken to replace the weak girders by stronger metals. The amount of expenditure on account of improvement work was 29,236,813 yen, an increase of 13,558,015 yen over the preceding year.

The length of lines open to traffic during the year was 5,044.1 miles, (inclusive of 26.4 miles of the leased line), being an increase of 173.8 miles over the preceding year, while the length of all tracks extended 7,424 m. 27 ch., an increase of 371 m. 46 ch. over the preceding year. The number of stations in service totalled 1,389, being 101 more than in the preceding year.

The following is a brief abstract of the more important works which come under construction work:—

Work on the remaining portion of the Miyanokoshi-Kiso Fukushima section was completed, as also the roundhouse and other structures in Kiso Fukushima station, and the section was opened for traffic on May 1st, 1911. With this, through service was opened on the whole of the Central line (Hachioji-Nagoya).

The Toba line was completed as regards the remaining portion of the bridging, tunneling, and earth works, and was opened for traffic on July 21st, 1911.

On the San-in line the Fukuchiyama-Wadayama and the Kinosaki-Kasumi sections in the east were completed and opened for traffic on October 25th, 1911, while in the west the Iwami-Hamasaka as well as the Hamasaka-Kasumi section which was the most difficult section on the whole line, were both completed, the former being opened for traffic on November 10th, 1911 and the latter on March 1st, 1912. With this, through service was opened on the San-in line (Fukuchiyama-Imaichi). As regards the Daisha line which forms a branch to the line, the time elapsed was too short to admit of any noteworthy progress, but at the same time it is energetically proceeded with in the hope of having the line opened for traffic early in the next fiscal year.

The Hamada and the Yamaguchi lines which were both started at the beginning of the year under review, made no particular progress.

With the completion of the remaining portion of the permanent way work, the Naoetsu-Natate section, Toyama line, was opened for traffice on July 1st, and the Tomari-Natate section, too ,was so well forward that it was practically ready for operation and will be put into service early next fiscal year.

Work on the Gan-Etsu line, which was attended by considerable difficulties, was further hampered by the floods of rare magnitude in recent years, but all the same satisfactory progress was shown. The Yamato-Nozawa and the Maoroshi-Tsukawa sections were practically completed with the exception of part of permanent way work, and the Nozawa-Tsukawa section, too, was equally well forward that it was completed in greater parts. Steady progress was also made with the Shibata line, the work being practically completed save for a part of the permanent way, bridging and structures.

Work on the Taira line was confined to the working survey and the purchase of land, no actual start being made with construction work.

The Kogota-Iwadayama and the Shinjo-Masugata sections, Shinjo line, progressed fairly well and was brought to completion in greater parts, while the Masugata-Kiyokawa section showed but very tardy progress owing to the technical difficulties of the section.

The Naruto-Togane and the Soga-Anegasaki sections, Boso line, were completed and opened for traffic on November 1st, 1911 as regards the former and on March 28th, 1912 as regards the latter, while

the Anegasaki-Kisarazu section, which suffered terribly form the damage by a tidal wave, was completed in greater parts and quite ready for operation and will be put into service early in the next fiscal year.

The Hiji-Oita section, Oita line, was completed as regards the remaining portion of permanent way work and the laying of bridge girders, the Hiji-Beppu section being opened for traffic on July 16th, 1911 and the Beppu-Oita on November 1st of the same year. The through service was thereby opened on the whole of the Oita line (Yanagigaura-Oita).

No noteworthy progress was made with the Saeki and the Sanuki lines, the work on both lines being started as late as the beginning of this year.

Although seriously hampered by the damage done to the work by the torrential rainfall and flood in September, 1911, fair progress was made with the Sendai line, the Kagoshima-Higashiichiki section being completed in greater parts. Work on the Miyazaki line, too, was rapidly proceeded with and practically completed for the Yoshimatsu-Kobayashi section.

The Rikumbetsu-Nokkeushi section, Abashiri line in Hokkaido, being completed as regards the remaining portion of permanent way work as well as the equipment of stations, was opened for traffic on September 25th, 1911, while the Nokkeushi-Abashiri section was practically ready for operation. As regards the Nayoro-Onnenai section, the remaining portion of the work being completed, it was opened for traffic on November 3rd, 1911. The Onnenai-Sakigoro section, too, was brought to the verge of completion. The Takigawa-Shimoashibetsu section, Shimofurano line, was finished with the exception of part of permanent way work and station buildings, while the work on the Shimoashibetsu-Shimofurano section was well advanced.

Turning next to light railways, the Moka line was practically completed, but no noteworthy progress was made with the Kuroishi, the Kurayoshi and the Iwanai lines, because of the short time that has elapsed since the commencement of the work, as also the Yubetsu line, for which the work was confined to preliminary arrangements.

The outlay on account of construction during the year was settled to the amount of 19,963,484 yen, an increase of 1,216,418 yen over the preceding year.,

In the Railway Testing Office, experiments were carried out on cement, coal, brick, oils, metals, woolen cloths, paints, water, stone, etc. as well as on the stress, strains and deflections of bridges.

In regards to the Relief Association the membership on the roll at the end of the year under review aggregated 90,717. The revenues to the coffer of the Association totalled 862,655 yen consisting of 330,417 yen for Government subsidy, 451,132 yen for subscriptions from the members, 49,575 yen for bank interest, 18,604 yen for interest on bonds, 12,661 yen for the Hospital revenue, 143 yen for contributions from the interested public, and 123 yen for sundry receipts. The expenditure, on the other hand, comprised 127,388 yen on account of injury grants for 618 cases, 137,231 yen on account of 627 death grants for 627 cases, 102,747 yen on account of medical allowance for 7,287 cases, 97,917 yen on account of repayments for 8,196 cases, 4,582 yen on account of dressing room expenses with 10,132 cases subjected to the treatment therein, 24,354 yen on account of the Hospital expenses with 5,279 out-patients and 498 in-patients, 17,494 yen on account of machines and tools and 6 yen on account of losses, bringing the total to 511,719 yen represented by 32,637 cases. The balance 350,936 yen, together with 1,159,853 yen brought over from the preceding year's account, 1,510,789 yen in the total were carried forward to the next year's account.

The foregoing is the general resume of the results of the working of the Imperial Government Railways of Japan for the year ending March 31st, 1912, and I beg your Excellency to refer for details to the reports, tables and diagrams of the State lines as appended hereto.

I have the honour to be,

Sir,

Your Excellency's obedient Servant,

BARON SHIMPEI GOTO,

President, Imperial Government Railways.

January 27th, 1913.

To His Excellency

PRINCE TARO KATSURA,

Minister-President of State.

State Railways.

CHAPTER I.

RESULTS OF TRAFFIC.

The average mileage of lines worked during the year under review was 4,896.8 miles for passenger traffic and 4,946.7 miles for goods traffic, while the total number of passengers carried one mile and the aggregate weight of goods hauled one mile were 3,382,586,411 and 2,347,871,475 tons, respectively. The coaching receipts amounted to 50,674,259 yen and the goods receipts to 45,675,693 yen, making a total of 96,349,952 yen.

These figures as divided among the different Divisional Superintendent Offices are as follows:—

Jurisdiction	Item					
	Average mileage worked	Number of pass. carried one mile	Coaching receipts	Average mileage worked	Weight of goods hauled one mile	Goods receipts
	mile		*yen*	*mile*	*ton*	*yen*
Eastern Div. Sup't. Office	1,339.4	681,592,100	10,405,409	1,344.5	712,181,162	12,789,617
Central „ „	1,064.0	1,119,071,441	16,154,077	1,072.0	592,207,822	11,477,611
Western „ „	1,056.8	1,078,230,402	16,210,995	1,062.3	441,898,362	8,208,926
Kyushu „ „	562.1	315,489,198	4,967,812	591.7	338,984,309	8,085,820
Hokkaido „ „	752.1	160,769,469	2,493,949	753.8	257,622,196	4,954,210
Yonago Branch Office	122.4	27,433,801	442,017	122.4	4,977,624	159,509

Compared with the corresponding figures for the preceding year, the foregoing show in the mileage worked an increase of 180.9 miles for passenger traffic and of 182.5 miles for the goods or a gain of 3.8 per cent. in each item, the increase being accounted for by the opening of the last section of the Central and the San-in lines and the extension of the Sangu, the Shin-Etsu, the Sobu, the Hokuroku, the Hoshu, the Teshio and the Abashiri lines. The number of passengers carried one mile increased by 343,849,455 or 11.3 per cent., and the weight of goods hauled one mile by 221,037,002 tons or 14 per cent., while the coaching receipts showed a gain of 5,141,180 yen or 11.3 per cent., the goods receipts of 4,818,463 yen or 11.8 per cent., and the total of 9,959,643 yen or 11.5 per cent. over the preceding year.

The general results of traffic during the year under review were on the whole satisfactory both in passenger and goods services. Apart from the fact that the summer of the year passed off without the occurrence of any such serious floods as in the preceding year, the success may partly be accounted for by the unprecedentedly active transport of party tourists witnessed at the beginning and the end of the year, the favourable conditions of the market continuing from the preceding year, the opening of through service on the San-in and the Central lines, the increased rolling stock and the various improvements carried out in transportation facilities.

In passenger traffic the seasonable weather that prevailed during the spring time induced a large volume of tourist traffic consisting chiefly of pleasure-seekers on a visit to places noted for cherry-blossoms as well as those of scenic beauty or historical interest. Then Kyoto was *en fête* on account of the religious services that were held at the Chion-in temple and the East and the West Honganji temples in commemoration of the anniversary of the death of their respective founders, no less than 180,000 party pilgrims as well as an immense number of individual visitors for pleasure or piety being drawn to the city from all parts of the country. The total number of passengers arriving at and departing from Kyoto and Umekoji stations during April and May reached a record-breaking figure of approximately 1,800,000, an increase of more than 80,000 over the preceding year. Furthermore, the bulk of the foregoing parties having on their way home made a round visit to places of note about the Kansai districts, did a great deal to enliven the business of the various lines concerned. May witnessed a large number of applications made by intending general party travellers, but the railways were to accept only a limited portion pending the busy transport of the aforementioned party pilgrims. With the through service opened on the Central line on May 1st, the new facilities thus effected in the communications between the Kansai districts and Echigo and Shinano provinces began to offer considerable inducements to travel in the northern districts, such as pilgrimage to the Zenkoji temple in Shinano province. In Hokkaido, a large catch of herrings and the festivals celebrated at the coal mines imparted favourable influences to passenger traffic.

As was usually the case in the rainy season of June, the year witnessed the temporary paralysis of communication on the San-yo and the Kyoto lines,

but the launching ceremony of the Hirado given at the Kawasaki Dockyard and the general meeting of the Red Cross Society held in Tokyo did something to reinvigorate one of the dullest seasons of the year as regards passenger traffic. With the opening of the Yamada-Toba section in July and the extension of the Oita line to Beppu in the same month, passenger service along the lines grew in activity. The pilgrim party to the Great Shrines of Ise, the Mt. Fuji Climbing party and various other excursion parties witnessed during the month were followed by students on homecoming for the summer vacation, and visitors to summer resorts and to sea-bathing places which came up to the record of the average years.

The inclemency of weather in August involved the various lines in more or less damage, entailing in some cases the suspension of train services, but the damage done was quite insignificant as compared with those of the preceding year. On the other hand an appreciable portion of passenger traffic between Moji and Kokura were won over to the Kyush Electric Company line which had just been opened for service. At the end of August Hokkaido was honoured with a visit from H. I. H. the Crown Prince. The *Nihyaku-toka* and the *Nihyaku-hatsuka* (the 210th day and the 220th day of the calender year), proverbially critical days for the rice crop, passed off calmly, which encouraged the public anticipation for the prolific harvest of the year and tended to improve the general tone of the market, and this favourable state of affairs gave rise to a number of tourist parties of provincials. In October, a month of calm, fine weather, all the lines were daily crowded by a large number of excursionists going for maple-viewing or mushroom-gathering as well as by students on school excursion. The special military manœuvre conducted in Kyushu, the opening ceremony of the Oita line, the preaching tour of the Bishop of the West Honganji temple along the Hokuroku and the Kyushu lines, the inter-Division manœuvre between the 4th and the 16th Divisions in Osaka and Hyogo prefectures,—all these served as an occasion of lively business on the lines concernned. The strike got up by employees of the Urban electric railways on the closing day of the year and extended over the New Year's day occasioned an extraordinary heavy passenger traffic on the Yamanote electric line.

In early January train services were interrupted at several places on the lines traversing Hokkaido and the North Eastern districts owing to severe snow-storms raging for days on end. The same month saw a visit to Japan of a foreign tourist party organized under the auspices of the Hamburg-American Line. The opening of the through service on the San-in line that took place on March 1st brought about a complete renovation in the features of communication with the long-sequestered regions of Izumo and Inaba, inducing thereby quite a number of tourist parties on a pilgrimage to the Great Shrines of Izumo or for the purposes of inspecting commercial and industrial affairs of the district.

The festivals celebrated from March 1st to May in commemoration of the tercentenary of the establishment of the Holy of Holies of the Shrine of Kompira in Shikoku and the religious services held at the West Honganji, Kyoto, from March 16th to 23rd drew from almost all parts of the country quite a large number of party pilgrims to the seats of their respective functions, the number of passengers carried thereto during the *fêtes* and the earnings derived 55,000 yen for the former and 45,000 representing 93,000 yen for the latter.

As epitomised above, quite a favourable condition was maintained throughout the year as regards passenger business, the record thereof realizing a gain over the preceding year of 46,415 or 7.2 per cent. in the average number of passengers carried one mile worked and of 693 yen in the coaching receipts per mile worked. Then as to the average mileage of travel per passenger mile, notwithstanding the downward tendency witnessed in recent years, was brought up to 22.4 miles, 5 miles more than in the preceding year. This was chiefly attributable to the increase of passengers on long distance travel such as party pilgrims to Buddhist temples and Shinto shrines and of sight seeing tourists travelling in bodies, with the result that the average fare per passenger worked out to 31 sen, a gain of one sen, and the average fare per passenger per mile 1.3 sen as in the preceding year.

Adverting next to goods traffic, it is to be noted that prosperous business was experienced throughout the early part of the year, and this notwithstanding the fact that the service was more or less hampered on all lines, and especially on those running around Kyoto, owing to the additional despatch of extra passenger trains rendered necessary for the wholesale transport of party pilgrims. The feritilizer season that followed was marked by the brisk movement of not only manures but staple commodities in general.

The business was, however, at a very low ebb during the rainy season of June, when, as is annually the case, the inclement weather hindered the prompt operation of feeder service and considerably retarded the delivery of goods both in loading and unloading operation. Only the railing in bulk of the produce of the season like mulberry leaves and raw cocoons did something to enliven the business of the dull month.

The sudden appreciation of price of rice for time bargains encouraged the active shipment of the cereal in summer, and this service was generally carried out without meeting with any such hitch as hampered the traffic of the preceding year in the shape of floods and washaways.

The wagon ferry service inaugurated between Shimonoseki and Moji on November 1st gave an impetus to the phenomenal growth of through goods traffic, the returns being nearly trebled as compared with the preceding year, and moreover the special military manœuvre conducted in Kyushu in the same month occasioned quite a heavy transport of goods billed for the island from the San-yo districts.

As it drew near the end of the year, the traffic grew in activity on all lines, rice, coal, timber, stone and similar heavy commodities being shipped to the

market on an immense scale. The favourable condition outstood the year owing to the speculative despatch of goods in view of the anticipated busy transport of party pilgrims with the advent of spring.

In reviewing ,then, the movement of the principal commodities in general, the delivery of coal in Hokkaido was rather dull during the early part of the year, when, to make matters worse, serious forest fires devastated collieries at Utashinai, Shikanotani and Wakanabe, annihilating the coal store in some cases, and dislocating the mining business in others. The loss involved by the calamity, though by no means small, was, however, partly made up for by the favourable turn that the business subsequenntly took, an improvement on the previous account being recorded to the extent of more than one million tons in this particular item. While the miscellaneous cereals in the districts were equally affected by the dull market, the delivery of timber, on the other hand, marked a reassuring record of 750,000 tons in weight, an increase of 100,000 tons over the preceding year, the commodity being sought after from various parts of the country both in and out of the island.

The traffic in Joban coal which was increasing month by month, was favoured by the substantial rise of the market since November, and realized a heavy booking of over 1,500,000 tons by the end of the year, an increase of 200,000 tons roughly as compared with the preceding year. Timber produced in the North Eastern districts showed an improvement of 5,000 tons on the previous account, owing to a fairly large demand for building material occasioned by the disastrous fire that demolished a part of Tokyo in April. The rice produce in the same districts, on the other hand, showed no marked improvement on the previous year as regards the first half of the year, but later on the heavy movement of traffic was witnessed as a result of the appreciation of the quotations that prevailed in the latter part of the year. The shipment of sundry cereals and stone increased by 50,000 tons against the preceding year.

The rice crop in the districts served by the Hokuroku line did not compare well with the figures of the previous year, the booking thereof falling far short of the expectations even when the harvest season was well advanced, and with 60,000 tons railed from September to March next year, the total volume of the traffic failed to come up to the level of the preceding year. The active transport of Echigo rice that had outstood the end of the previous year was followed by a terrible depression during the latter part of the year, the probable explanation being that the yield of the season was discovered to fall short of the estimate. The returns of petroleum traffic, too, fell off to a degree.

In Central line, timber produced in Otsuki, Hinoharu, Kobuchizawa and Sakashita and stone in Kamisuwa, Yomotsu, Hatsukari and Hajikano were appreciably increased in the volume of delivery, owing to the ample resources of the products of the districts, while mineral traffic, too, bade fair to increase in quantity.

Crockery from Nagoya and surrounding district and *sake* (Japanese liquor) from Nada, Itami and Sumiyoshi well maintained the figures recorded in the preceding year. Traffic in fertilizers of various kinds increased by 10 per cent., and table-salt by roughly 30,000 tons. The delivery of cotton showed an increase of 50,000 tons in round figures, notwithstanding the civil commotion in China, the result being attributable to the prolific crop in America and the anticipatory importation of the commodity in view of the enforcement of the revised tariff. In San-yo line a larger amount of iron, cotton yarn and fruits was despatched than in the previous year, while the despatch of fish from Shimonoseki showed a satisfactory result of well nigh 111,000 tons. The traffic in Kyushu coal, too, was equally heavy and especially during the latter half of the year the booking showed a monthly advance of between 70,000 and 80,000 tons, the total weight railed during the year reaching a grand sum of 8,690,000 tons, a gain of approximately 1,000,000 tons over the figures of the preceding year. The despatch of rice and sleepers, too, recorded an increase of 10 per cent. in each item over the previous year, while the delivery of tobacco and the cereals in Kagoshima districts compared well with the returns of preceding year.

On the whole the average weight of goods per mile worked amounted to 474,634 tons, an increase of 28,214 tons over the figures of the preceding year, while the average receipts per mile worked rose to 9,234 yen, being 658 yen more than in the previous year's returns. On the other hand the average mileage per tons of goods fell off by 8 miles as compared with the preceding year, and this notwithstanding the fact that no particular change was witnessed in the working of the system of discount rates on mileage basis and of the same under special agreement and in the generally increasing tendency of the volume of goods of long distance haul. The fact is, that a direct and shorter route was afforded by the opening of through service on the Central line which enabled goods billed for Shinano and Echigo to be conveyed from Nagoya direct by the new line instead of by the roundabout way via the Tokaido, the Yamanote and the Takasaki lines, while in the jurisdiction of the Eastern Superintendent Office the practice was discontinued of transporting goods to northern districts by a detour via Aomori, which was rendered necessary as a temporary expedient when the line was blocked near Akaiwa on the O-U line. The fall in the mileage per ton of goods was reflected in the average rates per ton of goods, the result being a decrease of 7 sen for the Eastern Division and of 12 sen for the Central. Then the average rate per ton per mile increased by between .03 and .04 sen owing to the diminished application of discount rates for goods of long distance haul. In the jurisdictions of the other Superintendent Offices, the record returns of the previous year were well maintained and the total returns for the whole system showed a decrease of 3.5 miles in the average mileage per ton of goods and of 4 sen in the average rate per ton and an increase of .02 sen in the average rate per ton per mile.

CHAPTER II.

TRAFFIC ARRANGEMENTS.

On October 1st the wagon ferry service was inaugurated between Shimonoseki and Moji. The problem of how to deal with through goods traffic between the Main Island and Kyushu which are separated by the narrow Strait of Shimonoseki, was one which taxed the ingenuity of the railway authorities. Various investigations were made without arrving so far at any suitable solution, and the great inconvenience attending the clumsy method of transhipment from vehicle to ferry and vice versa at Shimonoseki or Moji, as the case may be, could not be overcome. With the introduction of the wagon ferry arrangements, however, all the cause of the trouble and delay was removed, for by the use of ferries, wagons, with their contents, can be shipped bodily from the railway lines on to a barge and then tugged by a steamer across the water and launched again on to a siding on the opposite shore. The benefit resulting from the new service was, that, besides ensuring the safe and prompt delivery of goods, it enabled coal, ballast and other commodities of unwieldly bulk to be taken direct in wagons from Kyushu to any part of the Main Island or vice versa.

In view of the recent growth of parcels consigned for delivery by rail, a number of parcels offices were opened on October 1st at various places in Osaka, Kobe, Okayama, Hiroshima, Himeji, Akashi and other leading towns in order to attend to the checking of parcels and, in some cases, wagon goods of express consignment as well, both of which business had hitherto been confined to the railway stations much to the inconvenience of the public.

On June 20th another city railway office was opened at Hiroshima and was commissioned, as are all others on the list, to deal with the checking of luggage and parcels and also with the same of tickets.

The special delivery service was opened on April 1st at Shimbashi, Ueno, Yokohama, Kyoto, Osaka and other leading stations, and luggage and parcels consigned for local delivery, were to be delivered at the door of the consignee within two hours after the arrival of the train.

On July 1st a sleeping car service was established for the first time on the Hakodate and Asahigawa line trains.

In consideration of the existence of competitive water routes, special discount fares were put in force between Oita, Beppu and other stations on the one hand and on the other Kobe, Osaka and Kyoto.

The issue of Nara excursion discount tickets was started at Kobe, Hyogo and Sannomiya stations, that of Kobe and neighbourhood excursion tickets at Itami, Ikeda and other stations, of discount tickets for a round trip to Kyoto, Ise, Koya and Nara at Beppu and Oita, and of Mt. Hiei climbing tickets at Osaka, Kobe, and other stations.

The following stations have been added to the list of stop-over stations:—

Kanazu on the Hokuroku line, Kisofukushima on the Central, Wadayama, Kinosaki, Hamasaka and Iwami on the San-in, Yamada and Futamigaura on the Sangu, Kamegawa and Beppu on the Hoshu, and Nayoro on the Teshio.

Turning to goods rates, as a means of fostering the export trade, further additional reduction was carried out on September 1st on the freight of cocoon as material of silk and *habutae*, while from November 1st on a refund of 20 per cent. was granted to coal billed abroad on presentation of the export certificate.

A reduction was effected on minerals shipped from all stations on the North Eastern and the O-U lines with a view to encouraging the development of mining industries of various kinds which recently had a tendency to thrive on an extensive scale with the development of smelting enterprises in Japan.

Fish, living or raw, which under the existing Tariff belongs to the category of 'high class' on account of the careful handling and prompt delivery it requires, was given on November 1st a special reduction of freight as consigned in wagon loads, the rate variable between 25 and 40 per cent. according to the distance to be covered, the reason for reduction being that with the recent development of marine industry, this staple edible of the Japanese began to be consigned for delivery in ever increasing bulk.

On the occasion of tht disastrous conflagration that took place in Tokyo in January 6th, 1912, and that in Osaka on April 8th, 1911, articles sent from all parts of the country for the relief of the sufferers were all carried free, whether they be parcels or wagon goods.

For the benefit of passengers and their luggage booked via Sannomiya and Moji or Nagasaki, a through service was opened between the Tientsin, the Shanghai and the Dairen services of the Nippon Yusen Kaisha and the Keelung service thereof on the one hand and on the other Shimbashi, Hiranuma, Nagoya, Kyoto, Osaka, Sannomiya, Kobe and other leading stations.

A joint traffic was opened for passengers and their luggage and parcels as well as wagon goods with all stations on the Ashio Railway Co. line which had newly opened its business, and also with all stations on the Noda line under management of the Chiba Prefecture, and with those on the Shimabara Railway Co. line. A similar service was opened for passengers and their luggage and parcels between the leading stations on the Shimbashi-Kyoto line and all stations on the Seibi Railway Co. line which connects the Tokaido line at

Okazaki. Lastly, with the object of attending to the convenience of passengers on a visit to the Ikao spa from Tokyo, a direct traffic between Ueno and Ikao was opened for passengers and their luggage in league with the Ikao Electric Railway Co., the Takasaki Hydro-Electric Railway Co., and the Maebashi Electric Tramway Co.

The joint traffic with the Iyo Railway Co. line in the Island of Shikoku which had been confined, as regards the intermediate ferry service, to the Osaka Shosen Kaisha's Ujina-Takahama route, was extended so as to include the steamer service between Onomichi and Takahama run by Mr. Hyotaro Ishizaki. Simultaneously the through rail-and-water traffic service was opened for wagon goods between Mitsuhama and Takahama on the one hand and on the other Shimbashi, Nagoya, Kyoto, Osaka and all other stations on the San-yo line.

In consequence of the extension of the Hoshu line, the junction station at Hiji on the same line was superseded by Western Oita as the junction for the joint passenger through traffic with the Osaka Shosen Kaisha's Bungo-Hiuga route. At the same time the sale of the through water-and-rail tickets was extended, in league with the above Company, so as to cover Kawanoishi, Yawatahama and other ports in the Island of Shikoku.

The joint traffic service was inaugurated for passengers and their luggage and parcels as well as wogan goods between Kizuki, Yutsu, Hamada, Hagi and other ports served by the Osaka Shosen Kaisha and on the one hand and on the other all stations west of Kyoto as also for passengers and their luggage and parcels between the Hotta and Co.'s Kabakori-Toba steamers and the leading stations on the Shimbashi-Nagoya section.

The San-in line which, owing to the absence of the continuity of the lines, had been left outside the scope of joint traffic services with the shipping concerns, was for the first time added to the list of same through services simultaneously with the opening of its last section to traffic.

CHAPTER III.

SHIPPING SERVICE.

The number of steamers in service at the end of the year under review was 28 (23 belonging to the Imperial Government Railways and 5 chartered) with a gross tonnage of 19,571.30 tons. The following is the principal arrangements made in connection with the service during the year:—

Passenger fares reduced on the Shimonoseki-Fusan line.

Beacon buoys provided in the harbour of Shimonoseki.

Wagon ferry service opened between Shimonoseki and Moji.

Number of day trips increased on the Shimonoseki-Fusan line.

Ferryboats increased on the Shimonoseki-Fusan line.

Maizuru-Sakai line service discontinued.

The average length of lines worked (specified lines) during the year was 483 nautical miles, with an average number of trips working out at 102 and fractions per day, (the returns from the provisional lines excluded). The number of passengers carried amounted to 2,028,244 and the tonnage of cargo conveyed to 399,128 tons, while receipts from passengers aggregated 1,215,406 yen, cargo 745,610 yen, parcels, luggage and mail matter 138,282 yen, making a total of 2,099,298 yen. Compared with the corresponding figures for the preceding year, the above show an increase of 66,470 yen or 5.8 per cent. in passenger receipts, of 118,847 yen or 19 per cent. in the cargo and 195,351 yen or 10.3 per cent. in the total.

CHAPTER IV.

ACCIDENTS.

The following are particulars of the more serious railwaay accidents that took place during the year under review:—

On April 28th, 1911 at 7.41 p.m. No. 29 down goods train came to a halt at the entrance of the Yanagase tunnel, Hokuroku main line, when a receptacle for stoppage certificates is located, and with the brakes "on", it re-started. Scarcely had it proceeded halfway through the tunnel when the train was felt to gain in speed, and both the leading and the tail engines were braked again in order to have the train under control. As it emerged, however, from the tunnel, the leading engine got to "skidding", gathering speed with every minute it bolted down the decline. The sand box was opened, the reverse lever applied, and every thing possible done to bring the train to slow down, but

without avail. It dashed through Hikida station at 8.3 p.m., and lunged with full force into No. 22 up passenger train just outside the distant signal. The latter train, which had been alarmed into caution by the display of "danger" at the distant signal, came a few minutes later in sight of No. 29 train roaring against it with a terriffic force, and was on the point of receding when it was run into by the former. The next moment the collision took place, the kerosene oil trucks coupled to No. 29 burst out and blazed. Both engines were smashed out of shape, more than ten carriages and wagons were either damaged or burned to the ground, causing death to two railway servants, and injury to four passengers and four railway servants. Relief trains were despatched from Tsuruga and Maibara to repair the damaged track, while a temporary station was expedited for transhipment purposes. The service was resumed at 9.30 a.m. on the day following.

On May 3rd, 1911 at 12.43 p.m., No. 705 up passenger train was following along the Kiso-Fukushima-Miyanokoshi section, Central main line, when the engine was suddenly felt to sway and jump violently. The guard in charge took steps to hold the train with due promptitude, but too late. The engine, 3 carriages and one brake van with mail and luggage compartment either jumped out of the metals or tumbled over. Five passengers and two railway servants were injured, but slightly in the case of the former. Relief trains were sent from Kiso-Fukushima and Miyanokoshi stations, and through traffic was re-opened at 6.30 p.m. The accident was due to the defective construction of the locomotive, the sharp curve in the line along the scene of the disaster and the unsettled conditions of the roadbed and sleepers incident to a line newly opened.

On March 2nd. 1912 at 10.54 p.m., No. 385 down passenger train was due at Mihara station, San-yo main line, and the driver was attending to the inspection of the parts of the engine. Just at that time No. 42 express passenger train was approaching the station to pass through it to time as scheduled, but the servant in charge of point No. 5, presuming it to be behind its time, threw his point over to the wrong position and was away from his post of duty. On the other hand, the guard of the incoming train overlockekd "danger" at the home signal and the signal lamp, and allowed his train to proceed into the down track. The driver of No. 42 train which was standing on the same track, aware of the imminent danger, promptly reversed his lever and tried hard to recede, but failed to prevent the two trains from colliding with each other. The engine of No. 42 train was derailed to the left side, while the bogie luggage brake van and the following 3rd class bogie telescoped into each other, 43 passengers being injured in consequence. Breakdown gangs were sent from Itozaki, Okayama, Hiroshima and Shimonoseki and the clearance of the wreckage and the repair of the damaged track were pushed on with despatch, so that the up line was re-opened at 2.15 a.m. and the down line at 8.30 a.m. on the day following.

On April 5th, 1911 at 10.3 p.m. No. 803 down express train, shortly after passing through Nagayo station, Nagasaki main line, met with a serious accident at about 92 miles 60 chains near the up home signal. The engine derailed and tumbled down on its side, and the subsidiary luggage vehicle and 3 bogie passenger cars following were toppled down the embankment, while 2 passenger cars and the brake van were thrown off the rails. 9 passengers sustained serious injuries, 2 of which proved fatal, while passengers and 2 railway servants were hurt more or less heavily. On receipt of the news at Nagasaki, a relief train was started which reached the scene of the accident at 12.2 a.m. on the following day, and after transferring the injured and other passengers with their luggage, left back for Nagasaki at 2 a.m. A diversion was laid and traffic was resumed at 2.20 p.m. on the day following. The catastrophe was due to the excessive speed of the train, the insufficient weight of the subsidiary luggage vehicle, and the conditions of the rails and curves that were not adequate to ensure the working of the train at unreduced speed.

On September 22nd, 1911 at 7.40 p.m., as No. 22 up mixed train reached Tashiro station, Kagoshima main line, and was on the point of coming to a stand, "line clear" was given at the home signal, through the fault of the assistant station master in charge, for No. 803 express train which was approaching from the opposite direction. Meanwhile the guard of the former train, perceiving that the rear of his train did not reach the platform limit, went on pushing it until the head of the train overstepped its proper limit. The assistant station master, who became aware of the perilous predicament, hurried to re-set his signal to "danger", while calling the attention of the guard of the standing train to the awkward situation. The latter so warned, began to recede with due promptitude, but at this moment the incoming train was already passing the home signal, and all efforts to hold it on the part of the guard who came to realise the impending danger, were rendered futile by the momentum the train had attained by this time. The collision ensued, and both engines and 4 carriages and wagons were either derailed or capsized, inflicting slight injury upon 13 passengers, one postman, and two railway servants. On the scene of the wreckage a diversion was laid, and the single line service was opened at 1 a.m. on the day following, while through communication on the double was resumed at 4 a.m.

On July 4th, 1911 the Masaki-Yoshimatsu section, Kagoshima main line, depressed to a depth of 49 feet for about 6 chains, the centre of the depression being located at 194 miles 18 chains 50 links from Moji. The train service was consequently paralyzed from 6 a.m., and through service was not restored until 8 a.m., transhipment being resorted to ad interim.

Owing to the heavy downpour that prevailed during the early part of August, a number of rivers overflowed their banks and wrought damages upon the embankments, cuttings, etc., at places on the Tokaido, the Shin-Etsu and the Central lines. On the Naka-izumi-Tenryubashi section the traffic was interrupted

from 3rd, and transhipment was commenced from 7th, while the down line was opened on 11th and the whole service on 14th. The Otsuki-Hatsukari section was blocked on 3rd, where transhipment was effected on 5th and the repair work was pushed on, when there was another visit of shower and washed away the work which had been well proceeded with. It was not until 15th that the line was opened to through traffic. The service on the Matsumoto-Tazawa and the Nishijo-Akashina sections were suspended on 4th, and transhipment was established on 7th for the former and on 8th for the latter. Through communication was restored on 15th for both sections.

A snowstorm was experienced on the Hokkaido lines on January 7th, 1912 which came to an end on 9th, resulting in the damage to the Rumoi line, Hakodate main line. On the morning of March 18th another and still more serious blizzard took place all over the island, the gale increasing hour after hour until the morning of 19th when it developed into a hurricane of unheardof ferocity. The direction of the wind being the reverse of that experienced in usual year, the snow screens availed nothing, but proved quite a nuisance. To add to the misfortune, the downpour on the night of 21st was followed by the sudden fall of temperature, and froze the snow drift into the hardest substance, impeding the clearance work considerably. The train service was paralyzed all over the line, but the damage was particularly bad in the case of the Atsubetsu-Horomui, the Guchian-Shikaribetsu and the Kuromatsunai-Mena sections, Hakodate line, where the snow lay over 10 feet deep. The Rumoi line fared no better, for the drift was heaped for a matter of 31 miles to a depth of ranging from 4 to 15 feet. The suspension of the train service was the longest on the Ochiai-Shintoku section, Kushiro line, where through communication was not restored until the morning of 24th, while on the same day the Nayoro-Onnenai section was re-opened and the Rumoi line on the afternoon of 25th.

CHAPTER V.

ARRANGEMENTS & RESULTS OF LOCOMOTIVE WORKING.

Train Service. On May 1st, 1911 the whole Central line and on March 1st the whole San-in line being opened to traffic, the following passenger trains were put into service:—

Nagoya-Nagano	3 trips.
Iidamachi-Nagano	one trip.
Iidamachi-Nagoya	one trip.
Kyoto-Izumo-Imaichi	one trip.
Osaka-Izumo-Imaichi	one trip.
Osaka-Tottori	one trip.

Steam Motor Car Service. From October 1st, 1911 the steam motor car service was inaugurated on the Kazuki line which had hitherto been solely used for goods service.

Results of Locomotive Working. The results of the working of locomotives during the year under review are tabulated as follows:—

Item	Jurisdiction											
	Eastern Div. Sup't. Office		Central Div. Sup't Office		Western Div. Sup't Office		Kyushu Div. Sup't Office.		Hokkaido Div. Sup't Office		Yonago Branch Office	
	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year
Locomotive mileage	15,553,510.7	1,532,291.4	16,112,314.5	1,566,912.8	13,521,159.9	736,489.3	7,326,540	445,169.4	4,976,364.9	677,438	482,306.7	64,741.2
Car mileage	255,094,462	26,914,981	2,587,989.73	23,571,956	215,691,316.7	14,572,444.5	149,272,370.6	3,011,942.4	80,797,470.3	7,777,562.9	5,266,909.4	683,260.5
Coal consumed — Amount ... ... *kin*	718,272,703 (8,617,874)	122,247,270	579,911,381 (14,760,190)	64,575,993	427,876,239	26,709,539	203,780,438	13,103,383	229,357,013	24,506,534	11,375,830	2,313,190
Coal consumed — Value ... ... *yen*	1,290,075	△ 348,862	2,280,950	94,522	1,333,180	72,802	472,722	10,441	389,921	△ 27,986	37,523	4,677
do. per 100 loco. miles — Amount ... ... *kin*	4,618	367	3,599	56	3,164	26	2,781	10	4,609	△ 156	2,359	189
do. per 100 loco. miles — Value ... ... *yen*	8.294	△ 3.395	14.157	△ 0.875	9.860	0.001	6.452	△ 0.266	7.835	△ 1.866	7.780	△ 0.086
do. per 100 car miles — Amount ... ... *kin*	2.816	204	2.241	50	1,984	△ 11	1,365	113	2,839	34	2,160	183
do. per 100 car miles — Value ... ... *yen*	5.057	△ 2.126	8.814	△ 0.481	6.181	△ 0.086	3.167	0.131	4.826	△ 0.897	7,124	△ 0.042
Oil consumed — Amount .. .. *kin*	1,873.5	72.81	2,392.18	370.51	1,228.92	△ 52.49	707.45	24.49	437.10	△ 59.04	46.84	△ 4.57
Oil consumed — Value ... ... *yen*	36,827	1,159	46,057	206	28,624	△ 119	14,457	△ 650	9 830	1,150	856	△ 154
do. per 100 loco. miles — Amount ... . *kin*	1.2	△ 0.08	1.48	0.09	0.91	△ 0.09	0.97	△ 0 02	0.88	△ 0.27	0.97	△ 0.26
do. per 100 loco. miles — Value ... . *yen*	0.237	△ 0.034	0.286	△ 0.029	0.212	△ 0.013	0.197	△ 0.023	△ 0.198	△ 0.057	0.178	△ 0.064

N.B.—Parenthetical figures indicate the amount of oil dregs converted at the rate of one *sho* of oil = 5.4 *kin* of coal.

CHAPTER VI.

IMPROVEMENTS & PROVISIONS FOR ROLLING STOCK & APPLIANCES.

1. IMPROVEMENTS AND PROVISIONS FOR ROLLING STOCK.

Engines.

Fire grate replaced by rocking grate	for	116
New drop plate provided for fire grate	for	52
Valve gear renewed	for	42
Steam transmission arrangements made	for	56
Vacuum brake fitted	for	42
Steam brake fitted	for	10
Smoke deflector installed	for	20
Electric headlights fitted	for	15
Oil burner fitted	for	2
Drummond's water tube removed	for	34
0-6-2 type reconstructed into Vauclain compound 2-6-4 type	for	2
0-6-2 type reconstructed into 2-6-2 type	for	3
0-6-2 type reconstructed into 0-6-4 type	for	3

Passenger Carriages.

Electric lights fitted	for	772
Gas lights fitted	for	513
Steam-heating arrangements made	for	795
Vacuum alarm fitted	for	264
Vacuum brake fitted	for	56
Arrangement made for coupling two-wheeled passenger cars	for	24
Cable hanger fitted		
134 axles renewed	for	3
6-wheel bogie 2nd and 3rd class composite with hand brake reconstructed into 2nd and 3rd class with brake van	for	3
4-wheel bogie 2nd and 3rd class composite reconstructed into 2nd and 3rd class composite	for	1
4-wheel 2nd class reconstructed into 1st and 2nd class composite	for	2
4-wheel 3rd class reconstructed into 3rd class brake van	for	15
4-wheel 3rd class reconstructed into 3rd class parcels and brake van	for	2
4-wheel 3rd class reconstructed into parcels and brake van	for	5
4-wheel 3rd class brake van reconstructed into postal, parcels and brake van	for	4
4-wheel parcels and brake van reconstructed into 3rd class parcels and brake van	for	3
4-wheel parcels and brake van reconstructed into postal, parcels and brake van	for	3
4-wheel 1st class reconstructed into 2nd and 3rd class composite	for	1
4-wheel 1st and 2nd class composite reconstructed into 2nd class	for	1
4-wheel 2nd class reconstructed into 2nd and 3rd class composite	for	4
4-wheel 2nd and 3rd class parcels and brake van reconstructed into 2nd and 3rd class brake van	for	1
4-wheel 2nd and 3rd class composite reconstructed into 2nd class	for	10
4-wheel 3rd class reconstructed into electric car	for	2
4-wheel 3rd class reconstructed into 3rd class brake van	for	134
4-wheel 3rd class reconstructed into 3rd class parcels and brake van	for	21
4-wheel 3rd class parcels and brake van reconstructed into 3rd class brake van	for	10
4-wheel 3rd class parcels and brake van reconstructed into 2nd and 3rd class parcels and brake van	for	1
4-wheel 3rd class postal reconstructed into 3rd class postal, parcels and brake van	for	2
4-wheel 3rd class postal, parcels and brake van reconstructed into postal, parcels and brake van	for	1
4-wheel postal, parcels and brake van reconstructed into postal	for	3
4-wheel parcels and brake van reconstructed into postal and brake van	for	3

Goods Wagons.

Cable hanger fitted	for	11,542
Continuous draw-bar renewed	for	1,058
Hand brake fitted to horse van	for	7
Side brake fitted	for	556
The frame of coal truck renewed	for	300
3,155 axles renewed		
4-wheel "accident" car reconstructed into goods brake van	for	10
7 ton open truck reconstructed into 9 ton	for	2,528

II. ROLLING STOCK AND ENGINES ADDED TO THE LIST.

Kind.	Number.	Maker.
6-wheel coupled tank	1	Received in exchange from Bisai Rly. Co., Ltd. (Made at Pittsburg in America.)
4-wheel coupled tender	4	Osaka Kisha Seizo Kaisha.
do.	12	Kawasaki Dockyard Co., Ltd., Hyogo Branch.
6-wheel coupled tender	12	North British Locomotive Co., England.
do.	12	Berliner Maschinen Aktiengeselschaft, Germany.
do.	12	A. Borsig, Germany.
do.	24	American Locomotive Co., America.
6-wheel coupled	10	Allgemeine Electricitaets Geselschaft, Germany.
Total	87	

III. PASSENGER CARRIAGES ADDED TO THE LIST.

Kind.	Number.	Maker.
6-wheel bogie private	2	Shimbashi Works.
„ „ dining with smoking room	3	do.
„ „ dining with private room	3	do.
„ „ 1st class sleeping with private room.	5	Kobe Works.
„ „ 1st class with 2nd class sleeping	4	Asahigawa Works.
„ „ 1st and 2nd class composite	11	Kawasaki Dockyard Co., Ltd., Hyogo Branch.
„ „ 2nd class sleeping	5	Shimbashi Works.
do.	5	Kobe Works.
„ „ 2nd class dining with smoking room.	5	do.
„ „ 3rd class brake van	1	do.
„ „ laggage van	3	Shimbashi Works.
Total	47	

4-wheel bogie private	1	Sapporo Works.
„ „ dining with smoking room	3	Nippon Rolling Stock Co.
„ „ 1st and 2nd class composite	8	Omiya Works.
do.	15	Kawasaki Dockyard Co., Ltd., Hyogo Branch.
do.	8	Nippon Rolling Stock Co.
„ „ 2nd class	10	Kisha Seizo Kaisha.
„ „ 2nd class brake van	3	Omiya Works.
do.	2	Kisha Seizo Kaisha.
„ „ 2nd and 3rd class composite	5	do.
„ „ 2nd and 3rd class composite with brake van	3	Asahigawa Works.
„ „ 3rd class	3	Omiya Works.
do.	3	Kawasaki Dockyard Co., Ltd., Hyogo Branch.

Kind.	Number.	Maker.
4-wheel bogie 3rd class	6	Asahigawa Works.
do.	30	Nippon Rolling Stock Co.
„ „ 3rd class brake van	47	Kisha Seizo Kaisha.
„ „ 3rd class with hand brake	4	Asahigawa Works.
„ „ 3rd class luggage van	20	Mitsubishi Dockyard.
„ „ postal van	1	Omiya Works.
„ „ postal and luggage van	5	Kokura Works.
do.	5	Sapporo Works.
„ „ luggage van	6	Kisha Seizo Kaisha.
„ „ electric car	20	Shimbashi Works.
Total	208	
6-wheel 2nd class	2	Kobe Works.
„ 3rd class	5	do.
Total	7	
Grand total	262	

IV. GOODS WAGONS ADDED TO THE LIST.

Kind.	Number.	Maker.
4-wheel bogie iron coal truck	38	Kisha Seizo Kaisha.
„ iron coal truck	244	Mitsubishi Dockyard.
do.	15	Kawasaki Dockyard Co., Ltd., Hyogo Branch.
„ refrigerator	85	Yokkaichi Works.
do.	65	Kobe Works.
„ oil tank	3	Niigata Iron Works.
do.	3	Kawasaki Dockyard Co., Ltd., Hyogo Branch.
„ timber truck	100	Nippon Rolling Stock Co.
„ iron covered	35	Kawasaki Dockyard Co., Ltd., Hyogo Branch.
„ covered brake van	100	Nippon Rolling Stock Co.
do.	30	Kawasaki Dockyard Co., Ltd., Hyogo Branch.
do.	150	Omiya Works.
do.	45	Tsuchizaki Works.
do.	30	Morioka Works.
„ covered	120	Kobe Works.
do.	100	Tsuchizaki Works.
do.	250	Omiya Works.
do.	90	Morioka Works.
„ open	150	Nippon Rolling Stock Co.
do.	600	Kisha Seizo Kaisha.
Total	2,273	
4-wheel bogie open	143	Returned from S.M.R. Co.
„ water tank	5	do.
„ covered	186	do.
„ covered brake van	19	do.
„ open	598	do.
„ ballast truck	11	do.
„ balast truck with hand brake	1	do.
Total	963	
Grand total	3,236	

CARRIAGES AND WAGONS STRUCK OFF THE LIST.

4-wheel bogie 3rd class	1	Central Div. Sup't. Office.
„ 2nd clas	1	do.
do.	1	Western Div. Sup't. Office.
„ 3rd class	2	Central Div. Sup't. Office.
do.	1	Western Div. Sup't. Office.
„ postal and luggage and brake van.....	1	Central Div. Sup't. Office.
Total	7	

„ bogie open	1	Hokkaido Div. Sup't. Office.
do.	1	Western Div. Sup't. Office.
„ iron covered	2	Kyushu Div. Sup't. Office.
„ iron coal truck	1	Central Div. Sup't. Office.

CHAPTER VII.

WORKS.

At the end of the year there were 24 Works in operation. The average number of mechanics and labourers worked out to 15,658 per day, while the aggregate number of day's work amounted to 5,148,130 and the total sum of wages paid to 3,382,813 yen in value.

The principal items of work undertaken were the construction of 102 passenger carriages and 935 goods wagons and the repair of 2,207 locomotives as well as 963 goods wagons returned from the South Manchuria Railway.

An abstract of the principal new arrangements made at the Works is given below according to the Divisional Superintendent Offices.

EASTERN DIVISIONAL OFFICE.

Omiya Works. No. 1 painting shop, No. 2 smithy and electric machine shop rearranged and enlarged; additional turntable for goods wagons of small type provided; new shed for oil and iron stock provided; brass furnace installed at the casting shop; electric motor installed substitutionally at the lathe shop; pneumatic tubes installed at the erecting shop; 10 sets of machinery installed.

Honjo Works. New sawmill provided; earthern drain pipes laid to the extent of 362 feet; 5 sets of machinery installed.

Morioka Works. New drying room provided at the woodwork shop; erecting shop built and one pit and 3 turntables provided; 4 sets of machinery installed.

Tsuchizaki Works. Tempering furnace and its shed as well as painting shop provided; No. 2 shop enlarged; 3 sets of overhead travelling cranes installed at No. 1 shop and runway girders erected and rails laid for the crane operation; No. 2 dining hall provided; electric motor room provided at No. 1 shop; new spring furnace provided at the smithy; steam heating apparatus and its room provided; shed for wooden moulds provided at the casting shop; 2 sets of turntables for goods wagons erected and installed; 13 sets of machinery installed.

CENTRAL DIVISIONAL OFFICE.

Hamamatsu Works. Generating station, store rooms and smithy completed, and office and connected buildings, dining hall for mechanics and wash-stand nearly completed; construction of erecting shop and lathe shop completed by one third.

Shimbashi Works. Casting branch shop transplanted and rebuilt; copper smithy transplanted and rebuilt; smithy rebuilt; shed of erecting shop rebuilt; store room attached to the Works transplanted and rebuilt; coal testing room and work section of the Works transplanted and repaired; scales renewed; 56 sets of machinery installed.

NAGANO WORKS. New scales, cleaning room in the casting shop, tool-cleaning room in the erecting shop, shed for wooden patents provided and boiler room in the painting shop enlarged; concrete flooring of the woodwork shop completed; 8 sets of machinery installed.

KANAZAWA WORKS. Earthen pipes for the pit in the erecting shop, scales, etc. provided; smithy enlarged; office room transplanted and remodelled; metal tools cleaning room, wheel fitting room provided; 7 sets of machinery installed.

NUMAZU WORKS. 2 sets of machinery installed.

WESTERN DIVISIONAL OFFICE.

KOBE WORKS. Transformer station enlarged; dining hall for mechanics provided; medical room transplanted and rebuilt; 8 sets of machinery installed. Repair shop was provided on the Osaka station premises for the light repair of carriages and wagons.

TAKATORI WORKS. Office room and connected structures built; medical room transplanted and rebuilt; generating station enlarged; roof of the casting shop extended to an additional shed; water reservoir of a capacity of 3,000 galloons provided; repair shop for files provided; 19 sets of machinery installed.

HIROSHIMA WORKS. Smithy enlarged and 2 sets of machinery installed.

KYUSHU DIVISIONAL OFFICE.

KOKURA WORKS. Construction of erecting and lathe shops started; 19 sets of machinery installed.

WAKAMATSU WORKS. Construction of the shed for shearing and punching machines completed; 4 sets of machinery installed.

YUKIHASHI WORKS. 6 sets of machinery installed.

HOKKAIDO DIVISIONAL OFFICE.

HAKODATE WORKS. Car repair shop, erecting and lathe shops, smithy, casting shop, office room, store rooms and other building completed; provision of aqueducts and a spur line to the Works completed; 4 sets of machinery installed.

ASAHIGAWA WORKS. Outfit room for mechanics enlarged; one set of electric motor installed; fire-floor transplanted; air draft pipes transplanted.

SAPPORO WORKS. Line shaft and electric motor installed; 27 sets of machinery installed.

IWAMIZAWA WORKS. 2 sets of machinery installed.

Besides, the equipment and arrangements of Muroran Works were well forward, the raillaying and construction of car repair shop, smithy and lathe shop, turntable, office and other buildings being now complete.

CHAPTER VIII.

ELECTRICITY.

ELECTRIC COMMUNICATION ARRANGEMENTS. The principal arrangements made during the year comprised for the Eastern Division the additional wiring of telephone lines between Oyama and Fukushima, the renewal of telegraph lines and connnected works between Ueno and Tabata, the additional wiring of telegraph lines between Ueno and Akita; for the Central Division the wiring of telegraph lines in No. 1 Yokobuki and 11 other tunnels on the Central line, the renewed wiring of lines and connected works between Shimbashi and Yokohama, the laying of new circuits or the renewal of the existing circuits and connected works on the Shimbashi-Naoetsu and 32 other lines, the installation of Tyre's tablets for the Higashi-Kanagawa and Kozukue and 17 other sections, the additional circuits laid for the Shimbashi-Yokohama trunk line No. 5 and 29 other lines; for the Western Division the wiring of telephone line between Hyogo and Nagoya and Yamada, the wiring of lines between Hiroshima and Shimonoseki; for the Hokkaido Division the wiring of Tyre's tablet lines and of telephone lines and the laying of telegraph circuits.

TELEPHONE AND TELEGRAPH LINES (Communication Lines). The length of lines measured 2,071 *ri*

and length of wires 17,448 *ri*, an increase of 102 *ri* or 5.2 per cent. in the former and 3,277 *ri* or 23.1 per cent. in the latter as compared with the returns at the end of the preceding year.

Of every 1000 of the total length of wires the Eastern Division accounted for 286, the Central for 259, the Western 213, the Kyushu for 93, the Hokkaido for 142 and the Yonago Office for 8, while the percentage of the length of wires per *ri* of lines was 8.9 for the Eastern, 10.1 for the Central, 8.3 for the Western, 6.7 for the Kyushu, 7.6 for the Hokkaido, 2.6 for the Yonago and 8.4 (against 7.2 in the preceding year) for the total.

Circuits. The number of circuits totalled 5,809 with an aggregate length of wires of 20,473 *ri* 23 *cho* 8 *ken*, an increase over the preceding year of 1,312 or 29.2 per cent. in the number of circuits and of 3,954 *ri* 20 *cho* 10 *ken* or 23.9 per cent. in the length of wires.

Of every 1000 of the total length of wires the Eastern Division accounted for 273, the Central for 270, the Western for 216, the Kyushu for 86, the Hokkaido for 150, and the Yonago Office for 6, while the percentage of the length of combined telephone and telegraph circuits to the aggregate length of wires were 68.1 per cent. for the Eastern Division, 67.6 per cent. for the Central, 58.2 per cent. for the Western, 22.3 per cent. for the Kyushu, 58.4 per cent. for the Hokkaido and 60 per cent. for the total.

Communication and Signal Apparatus (in actual service). Telegraph apparatus of all descriptions numbered 2,065 sets, an increase of 293 sets or 16.5 per cent. as compared with the preceding year, the proportion of the recorders to the sounders being 4.1 to 5.9. The number of telephone apparatus was 6,889 in all, an increase of 1,501 or 27.9 per cent. over the preceding year. The number of block instruments were 2,422 in all, being 349 or 16.8 per cent. more than in the preceding year. Of the total block instruments, the proportion of those on telegraph block system represented 2.6 per cent., and those on tablet system 7.4 per cent., the latter showing a marked increase of approximately 30 per cent. over the preceding year.

An abstract of arrangements undertaken in connection with electric communication is given as follows:

Stations Open to Telegraph Service. The number of telegraph stations totalled 1,353, of which 862 stations accepted public telegraphs for despatch. When compared with the preceding year, the figures show an increase of 55 or 4.2 per cent. in the total and of 42 or 5.1 per cent. in the number of stations accepting public telegraphs.

Of every 1000 of the total number of telegraph stations 250 were represented by the Eastern Division, 224 by the Central, 249 by the Western, 123 by the Kyushu, 128 by the Hokkaido and 27 by the Yonago Branch.

Results of Message Traffic. The number of messages totalled 44,427,000 and fractions, consisting of 38,116,000 and fractions of railway telegraphs and 6,310,000 and fractions of public.

The average number of messages per day per station (in operation at the end of the year) was approximately 77 for the railway telegrams and 20 for the public. Compared with the preceding year, the railway telegrams increased by 4,056,000 and fractions or 10.3 per cent., the public by 326,000 and fractinos or 5.5 per cent. and the total by 4,382,000 and fractions or 10.9 per cent.

Of every 1000 of the total railway message traffic, the Eastern Division accounted for 210, the Central for 329, the Western for 254, the Kyushu for 80, the Hokkaido for 119 and the Yonago Office for 8, while as regards the public telegrams the Eastern represented 223, the Central 231, the Western 245, the Kyushu 167, the Hokkaido 130 and the Yonago 5.

Receipts from Message Traffic. During the year the Imperial Government Railways received 228,334 yen from the Department of Communications as its share in the charge for public telegrams, the sum being a gain of 11,518 yen or 5.3 per cent. over the returns in the preceding year. On averaging the total receipts per station in operation at the end of the year, the figures stand at 261.852 yen per station, a decrense of 2.558 yen or .9 per cent. as compared with preceding year.

Of every 1000 of the total receipts, 222 falls to the Eastern Division, 230 to the Central, 244 to the Western, 166 to the Kyushu, 133 to the Hokkaido and 5 to the Yonago Office.

2. ELECTRIC OPERATION.

Electric Operation Arrangements. The principal items made for electric operation during the year were, for the Eastern Division, the electrification and connected works on the Usui line continued from the preceding year, the opening of business at the Sannaigawa generating station and the Tsuchizaki transformer station; for the Central the installation of converters at the Ikebukuro and the Kashiwagi generating stations, the installation of storage battery and connected works at the Kashiwagi generating station, the equipment of the Yaguchi generating station, the provision of automatic block instruments on the Yamanote and the Urban lines; for the Western the provision of additional engines, boilers and motors and the renewal thereof at the Takatori generating station; for the Kyushu the wiring of current transmission lines at the Futajima and the Orio stations.

An abstract of the general results of electric operation for the year under review is given as follows:—

Generating and Transformer Stations. There were 27 generating and transformer stations at the end of the year, including Works and others provided with electric equipment. Motors numbered 47 sets representing 5,942 horse power, generators 48 sets representing 3,821 kilowatts, and transformers 63 sets representing 2,393 kilowatts. Compared with the preceding year's stock, the motors increased by 2 sets or 4.4 per cent. represetning 974 horse power or 19.6 per cent., the generators by 541 kilowatts or 18. per cent. in the capacity, the transformers by 23 sets or 76.7 per cent. and 83.1 per cent. in the capacity, while the number of generators decreased by 2 sets or 4.3 per cent.

Of every 1000 of the total capacity of generators, the Eastern Division accounted for 276, the Central for 252, the Western 262, the Kyushu for 91, and the Hokkaido for 119, while the horse power of motors per kilowatt of the capacity of generators was 1.56 for the Eastern, 1.63 for the Central 1.40 for the Western, 1.58 for the Kyushu, 1.71 for the Hokkaido and 1.56 for the total

Power Lines. The length of lines for the current supplied from the railway stations measured 52 *ri* 28 *cho* 47 *ken* with the length of wires extending to 227 *ri* 6 *cho* 10 *ken*, being an increase over the preceding year of 15 *ri* 8 *cho* 29 *ken* or 40.6 per cent. in the length of lines and 46 *ri* 10 *cho* 58 *ken* or 25.6 per cent. in the length of wires, while the length of lines provided for the purchase current or for lighting purposes supplied under contract was 27 *ri* 32 *cho* 9 *ken* with the length of wires extending to 68 *ri* 22 *cho* 20 *ken*, an increase over the preceding year of 8 *ri* 12 *cho* 58 *ken* or 42.8 per cent. in the length of lines and of 21 *ri* 13 *cho* 56 *ken* or 45.3 per cent in that of wires.

Motive Power. There were 253 sets of motors in operation at 42 stations, developing 4,388 horse power. Compared with the preceding year the stations increased by 10, the motors by 53 or 25.6 per cent., and the volume of horse power by 1,063 or 32 per cent. The relative volume of current from the two different sources was 82.8 per cent. for the self supplied against 17.2 per cent for the purchased.

Electric Cars. Cars in service numbered 69, motors for running purposes 180 sets developing an aggregate horse power of 249. Compared with the preceding year, cars increased by 25 or 56.8 per cent., motors for running purposes by 72 sets or 66.7 per cent., the horse power thereof by 3,617 or 71.4 per cent., motors for air compressing purposes by 21 sets or 50 per cent. and the horse power thereof by 116 or 8.72 per cent.

Electric Lighting. The number of glow lights were 35,007 or 55,045 as reduced to 10 candle power basis and those fed by the current of the railway stations were 15,616 or 24,320 as reduced to 10 c. p. basis, while the number of arc lamps 855 or 1,074 as reduced to 1000 c.p. basis, of which those fed by the current of the railway stations were 496 or 632 as reduced to 1000 c.p. basis. Compared with the preceding year, glow lamps increased by 9,307 or 36.2 per cent. in the actual number or by 19,804 or 56.2 per cent. in the reduced number and arc lamps increased by 188 or 28.2 per cent. in the actual number or 271 or 33.7 per cent. in the reduced number.

Electric Lighting in the Train. The number of cars fitted with electricity were 2,635 with the number of lamps amounting to 20,364, while the number of electric fans fitted in cars aggregated 458 sockets. The motor power equipment was represented by 609 generators, 14,494 storage batteries and 37 battery cars. Compared with the preceding year, cars increased by 1,323 or 100.8 per cent., lamps by 8,590 or 73 per cent., electric fans by 338 or 281.7 per cent., generators by 162 or 36.2 per cent. and storage batteries by 4,527 or 45.4 per cent.

Results of Train Lighting. The returns of lighting in the trains gave 261,744,076 candle hours, lighting in the trains gave 261,744,076 candle hours, involving expenses of 105,997.166 yen, which worked out to a rate of .0004 yen per candle hour. Compared with the preceding year, there was an increase of 106,853,045 or 69. per cent. in the candle hours, 20,002 068 yen or 23.3 per cent. in the expenses, and a decrease of .00016 yen or 28.6 per cent in the average amount per candle hour.

RESULTS OF WORKING ELECTRIC PLANTS.

Results of Working Generators. Watts output amounted to 7,302,715 k.w.h., involving expenses of 188,439.397 yen or .0258 yen per k.w.h. Compared with the returns in the preceding year, the watts output increased by 1,814,365 k.w.h. or 33.1 per cent., the expenses by 29,515.307 yen or 18.5 per cent, while the average expenses per k.w.h. decreased by .0032 yen or 11. per cent.

Of every 1000 of the total watts output, the Eastern Division accounted for 131, the Central for 368, the Western for 323, the Kyushu for 73 and the Hokkaido for 105.

Of the total watts output 11,455,705 k.w.h., 7,302,715 k.w.h. were supplied from the railway stations as given above, 532,619 k.w.h. purchased for the transformer stations, and 3,620,371 k.w.h. for car running purposes.

Results of Working Transformer Plants. The watts input 1,922,185 k.w.h. were required for 1,719,930 k.w.h. of the total watts output, 72.3 per cent. of which were represented by the railway generating stations, the losses incurred in the process of transforming figuring at 11.8 per cent. The expenses involved by the watts input were 33,966.816 yen (of which 69.2

per cent. were represented by the supply from the railway stations), while the expenses for transforming operation were 9,416.218 yen, the average of per k.w.h. of the watts output being .0197 yen for the coat price and .0055 for the transforming expenses. Compared with the preceding year, the watts output increased by 658,832 k.w.h. or 62.1 per cent., the watts input by 730,058 k.w.h. or 61.2 per cent., the expenses for the watts input by 8,877.678 yen or 35.4 per cent. and those for transforming operation by 2,736,558 yen or 41 per cent., while the cost per k.w.h. of the watts output decreased by .0039 yen or 16.9 per cent. and the transforming expenses by .0008 yen or 12.7 per cent.

Results of the Working of Electric Cars. The mileage travelled by cars aggregated 3,820,104 miles, while the current consumed amounted to 4,563,145 k.w.h., of which 3,620,371 k.w.h. or 79.3 per cent. were supplied by the plants of the Electric Bureau of the Tokyo Municipality, the balance being supplied by the railway stations. Of the total expenses amounting to 332,982 yen and fractions, 240,951 yen and fractions or 72.4 per cent. were claimed by the current supply, 51,101 yen and fractions or 15.3 per cent. by the upkeep of tracks, the balance 40,929 yen and fractions or 12.3 per cent. being disbursed for miscellaneous purposes. The current consumed and the expenses thereof as averaged per mile of car mileage worked out to 1.19 k.w.h. and .0872 yen, respectively. Compared with the preceding year, the car mileage increased by 549,835 miles or 6.8 per cent., the consumption of current by 739,782 k.w.h. or 19.3 per cent., the expenses by 29,794.883 yen or 9.8 per cent., while the current per car mile decreased by 26 k.w.h. or 2.2 per cent. and the expenses per car mile by .0055 yen or 5.9 per cent.

CHAPTER IX.

FINANCE.

1. REVENUE & EXPENDITURE OF THE RAILWAY CAPITAL ACCOUNT, ESTIMATE & SETTLED.

The revenue estimates for the year were 52,032,803 yen for the railway capital revenue and 42,594,004 yen for the railway stores and works receipts, making a total of 94,626,807 yen, and the amount settled against same were 49,980,642 yen and fractions for the railway capital revenue, 33,829,287 yen and fractions for the railway stores and works receipts, and 83,809,930 yen and fractions for the total, showing a deficit of 2,054,160 yen and fractions in the railway capital revenue, 8,764,716 yen and fractions in the railway stores and works receipts and 10,816,876 yen and fractions in the total. Compared with the preceding year's figures, there was for the estimates an increase of 11,432,803 yen in the capital revenue and of 2,287,458 yen in the stores and works receipts, and for the amount settled an increase of 12,913,705 yen and fractions in the former and 12,582,642 yen and fractions in the latter item. The increase in the capital revenue was accounted for by an increased appropriation of money occasioned by the growth in the construction and improvement expenditure, while as regards the stores and works receipts the same phenomenon was attributable to the increased demand for materials.

The estimate expenditure as originally prepared stood at 51,932,803 yen for construction and improvement expenses, 42,594,004 yen for stores and works expenses and 100,000 yen for the redemption of loans, making a total of 94,626,807 yen. With 11,422,419 yen and fractions for construction and improvement expenses brought over from the preceding year's account, the total estimates for the year amounted to 106,049,226 yen and fractions.

The amount settled against the same totalled 49,200,296 yen and fractions for construction and improvement, 34,640,208 yen and fractions for stores and works, 100,000 yen for the redemption of loans, and 83,940,504 yen and fractions for the total, the excess of the estimates over the setttled account being 14,154,926 yen and fracions for construction and improvement (which are to be carried forward to the next year's account) and 7,953,795 yen and fractions for stores and works.

Compared with the corresponding figures for the preceding year, the estimates increased by 17,506,939 yen and fractions for construction and improvement and by 2,287,458 yen for stores and works, while the settled amount increased by 14,774,433 yen and fractions for construction and improvement and by 12,833,680 yen and fractions for stores and works. The increase was due to an increased appropriation of 1,216,417 yen and fractions for construction on account of the progress of the prescribed works, and of the works on the Koriyama-Taira, the Imaichi-Hamada, the Kogōri-Yamaguchi, the Imaichi-Kizuki, the Oita-Saeki, and the Kawada-Ikeda sections, and to the laying of light railways which was started this year, while as regards improvement an increased appropriation of 13,558,015 yen and fractions was accountable to the progress of the prescribed works and several new undertakings entered upon, and the increase in the store and works expenses was chiefly traceable to the expanded demand for materials. The details are shown below:—

REVENUE ON THE RAILWAY CAPITAL ACCOUNT, ESTIMATE AND SETTLED.

	Estimates	Settled		Balance
	yen	*yen*		*yen*
Railway Capital Revenue	52,032,803.000	49,980,642.948		2,052,160.052
Transferred from Railway Profit	8,803,577.000	19,752,164.078	×	10,948,587.078
Transferred from Railway Profit	8,803,577.000	19,752,164.078	×	10,948,587.078
Loans	43,092,927.000	—		43,092,927.000
Loans	43,092,927.000	—		43,092,927.000
Miscellaneous	136,299.000	228,478.870	×	92,179.870
Miscellaneous	136,299.000	228,478.870	×	92,179.870
Proceeds of public loans	—	30,000,000.000	×	30,000,000.000
Short Term Bonds	—	30,000,000.000	×	30,000,000.000
Railway Stores and Works Receipts	42,594,004.000	33,829,287.285		8,764,716.715
Stores and Works Receipts	42,498,708.000	33,624,415.066		8,874,292.934
From Sale of Stores	33,998,966.000	26,547,698.670		7,451,267.330
From Repairs of Stores	8,499,742.000	7,076,716.396		1,423,025.604
Miscellaneous	95,296.000	204,872.219	×	109,576.216
Miscellaneous	95,296.000	204,872.219	×	109,576.129
Total	94,626,807.000	83,809,930.233		10,816,876.767

Note:—The figures marked with cross (×) show excesses of amounts settled over estimates. This remark also applies to the following tables.

EXPENDITURES ON THE RAILWAY CAPITAL ACCOUNT, ESTIMATE AND SETTLED.

	Estimates			Settled	Balance
	Brought from preceding year	At beginning of the year	Actual account at end of the year		
	yen	*yen*	*yen*	*yen*	*yen*
Railway Construction & Improvement.	11,422,419.586	51,932,803.000	63,355,223.586	49,200,296.387	14,154,926.199
Construction expenses	4,077,594.379	23,400,000.000	27,427,594.379	19,963,483.524	7,514,110.855
General	32,574.228	217,700.000	172,074.228	117,128.812	54,945.416
Hachioji-Nagoya-Line	427,117.693	2,200,000.000	588,049.327	328,027.395	260,021.932
Fukuchiyama-Sakai-Imaichi Line	332,534.191	2,625,374.000	2,347,755.172	1,997,301.572	350,453.600
Toyama-Naoetsu Line	355,532.113	1,110,107.000	2,280,345.113	1,724,571.431	555,773.682
Hokkaido Lines	289,934.605	3,700,000.009	3,197,549.645	2,943,509.070	254,040.575
Kitakata-Niitsu Line	105,769.605	1,500,000.000	2,652,339.758	2,087,455.472	564,884.286
Usa-Oita Line	111,666.325	900,000.000	628,137.325	373,480.313	254,657.012
Yamada-Toba Line	130,252.900	300,000.000	229,248.500	98,597.668	130,650.832
Niitsu-Shibata Line	9,222.100	1,200,000.000	1,082,742.850	1,043,318.433	39,424.417
Miyazaki-Yoshimatsu Line	62,697.714	1,200,000.000	1,485,638.994	1,169,575.371	316,063.623
Boso Line	199,287.977	1,000,000.000	1,519,287.977	1,238,364.400	280,923.577
Kogota-Shinjo-Sakata Line	51,895.384	1,000,000.000	2,123,338.150	1,237,102.191	886,235.959
Kagoshima-Sendai Line	—	1,190,919.000	1,351,662.750	1,090,177.429	261,485.321
Koriyama-Taira Line	—	150,000.000	225,522.097	201,783.424	23,738.673
Imaichi-Hamada Line	—	280,900.000	316,905.641	160,777.743	156,127.898
Ogori-Yamaguchi Line	—	300,000.000	310,000.000	194,597.821	115,402.179
Imaichi-Kizuki Line	—	200,000.000	200,518.926	70,648.969	129,869.957
Oita-Saeki Line	—	200,000.000	330,245.000	289,367.453	40,877.547
Kawada-Ikeda Line	—	150,000.000	280,000.000	268,088.405	11,911.595
Rolling Stock	1,667,498.096	2,975,000.000	4,662,135.017	2,625,740.818	2,036,394.199
Light Railways	—	1,000,000.000	931,639.622	504,539.886	427,099.736
Fukushima-Aomori Line	144,043.615	—	187,619.405	140,292.907	47,326.498
Yatsushiro-Kagoshima Line	68,444.223	—	287,060.193	48,710.912	238,349.281
Okayama-Uno Line	40,093.478	—	40,093.478	1,657.870	38,435.608
Fukuchiyama-Sonobe-Maizuru Line.	44.030.132	—	47,685.211	8,667.759	39,017.452
Improvement expenses	7,344,825.207	28,532,803.000	35,877,628.207	29,236,812.863	6,640,815.344
Improvement expenses	7,344,825.207	28,532,803.000	35,877,628,207	29,236,812.863	6,640,815.344
Stores & Works expenses	—	42,594,004.000	42,594,004.000	34,640,208.401	7,953,795.599
Stores & Works expenses	—	42,594,004.000	42,594,004.000	34,640,208.401	7,953,795.599
Stores expenses	—	38,314,165.000	38,162,775.782	30,304,985.498	7,857,790.284
Works expenses	—	4,146,541.000	4,297,930.218	4,297,930.218	—
Refunds	—	133,298.000	133,298.000	37,292.685	96,005.315
Redemption of Liabilities	—	100,000.000	100,000.000	100,000.000	—
Redemption of Liabilities	—	100,000.000	100,000.000	100,000.000	—
Redemption of Liabilities	—	100,000.000	100,000.000	100,000.000	—
Total	11,422,419.586	94,626,807.000	106,049,226.586	83,940,57804.8	22,108,721.798

The amounts settled and the surplus against the estimates for the continuing expenditures on Capital Account are tabulated below:—

Description	Spread over	Estimates	Settled	Balance
		yen	*yen*	*yen*
Construction Expenses		252,614,318.000	100,565,564.145	152,048,753.855
General Expenses	1807—25	2,100,288.000	537,758.441	1,562,529.559
Fukushima-Aomori Line	1907—11	4,177,791.000	2,242,666.434	1,935,124.566
Hachioji-Nagoya Line	1907—14	15,952,505.000	9,727,949.102	6,222,555.898
Yatsushiro-Kagoshima	1907—12	6,115,737.000	6,305,728.645	× 189,991.645
Fukuchiyama-Sakai-Imaichi Line	1907—12	18,694,793.000	19,272,453.201	× 577,660.201
Fukuchiyama-Sonobe-Maizuru Line	1907—12	5,137,236.000	4,432,934.291	704,301.709
Toyama-Naoetsu Line	1907—12	12,810,107.000	11,725,888.792	1,084,218.208
Hokkaido Lines	1907—15	23,003,647.000	12,813,279.874	10,190,367.126
Kitakata-Niitsu Line	1907—13	7,516,709.000	2,828,298.927	× 311,589.927
Okayama-Uno Line	1907—11	1,936,934.000	2,686,709.859	× 749,775.859
Usa-Oita Line	1907—14	4,851,035.000	3,760,314.875	1,090,720.125
Yamada-Toba Line	1907—14	1,448,248.000	901,193.994	547,054.0 6
Niitsu-Shibata Line	1910—13	1,963,332.000	1,342,799.031	620,532.969
Miyazaki-Yoshimatsu Line	1910—17	10,632,577.000	1,334,237.289	9,298,339.711
Boso Line	1910—15	5,587,621.000	1,389,076.423	4,198,544.577
Kogota-Shinjo-Sakata Line	1910—18	13,486,677.000	1,415,206.807	12,071,470.193
Kagoshima-Sendai Line	1910—15	6,647,285.000	1,398,159.244	5,249,125.756
Koriyama-Taira Line	1911—17	8,002,124.000	201,783.424	7,800,340.576
Imaichi-Hamada Line	1911—18	12,814,768.000	160,777.743	12,653,990.257
Ogori-Yamaguchi Line	1911—13	674,175.000	194,597.821	479,577.179
Imaichi-Kizuki Line	1911—13	295,665.000	70,648.969	225,016.031
Oita-Saeki Line	1911—17	8,209,323.000	289,367.453	7,919,955.547
Kawada-Ikeda Line	1911—15	3,561,634.000	268,088.405	3,293,545.595
Shibata-Murakami Line	1912—17	2,531,758.000	—	2,531,758.000
Tadotsu-Kawanoe Line	1912—17	2,202,130.000	—	2,202,130.000
Kisarazu-Hojo Line	1912—19	5,469,026.000	—	5,464,026.000
Tsuruga-Shinmaizuru Line	1912—20	7,915,463.000	—	7,915,463.000
Hamada-Yamaguchi & Masuda-Hagi Line	1912—25	23,479,803.000	—	23,479,803.000
Rolling Stock Expenses	1907—25	25,910,827.000	9,759,105.215	16,151,721.785
Light Railways	1907—20	9,485,100.000	504,539.886	8,980,560.114
Improvement Expenses		199,651,452.000	69,590,825.656	130,060,626.344
Improvement expenses	1907—21	199,651,452.000	69,590,825.656	130,060,626.344
Total		452,265,770.000	170,156,389.801	282,109,380.199

Note—The gross amount of estimates includes supplementary estimates voted at the 28th session of the Diet. The deficits on the Yatsushiro-Kagoshima, the Fukuchiyama-Sakai-Imaichi, the Kitakata-Niitsu and the Okayama-Uno lines were appropriated from the three items of the Fukushima-Aomori, and the Hachioji-Nagoya lines and rolling stock expenses.

2. REVENUE AND EXPENDITURE ON THE RAILWAY REVENUE ACCOUNT, ESTIMATE AND SETTLED.

The revenue for the year as originally estimated figured up to 92,442,320 yen, which together with 1,000,000 yen supplemented, brought the total to 93,442,320 yen. The amount settled against this was 102,785,091 yen and fractions, the result being an excess of the settled over the estimates amounting to 9,342,771 yen and fractions. The expenditure for the year as originally estimated was 82,888,743 yen on account of operation, 1,000,000 yen for the supplementary expenses, 250,000 yen for subsidies, total 84,138.743 yen. Against this was settled 82,282,927 and fractions, (no disbursement was made on subsidy account), leaving a balance of 1,855,815 yen and fractions to the credit of the estimates. Of the surplus that belonging to the additional expenses was to be carried forward to the next year's account.

On comparing the foregoing revenue and expenditure with the corresponding figures in the preceding year, it is found that the revenue increased by 2,960,990 in the estimates and by 11,002,282 yen in the amount settled, while the expenditure increased by 2,631,149 yen in the estimates consisting of 2,381,149 yen for the expenses for operation and of 250,000 yen for subsidies, and by 3,326,861 yen and fractions in the settled amount of the expenses for operation. The improvement was attributable to the growth of traffic in consequence of the extension of the new lines and the favourable condition of the market maintained from the preceding year. Details on this account are given below:—

	Estimates				
	Original	Supplementary	Total	Settled	Balance
	yen	*yen*	*yen*	*yen*	*yen*
Recipts from Operation					
Traffic Receipts	91,345,099.000	1,000,000.000	92,345,099.000	101,266,284.045	× 8,921,185.045
Passenger Traffic Receipts	47,718,532.000	600,000,000	48,318,532.000	53,376,831.520	× 5,058,299.520
Goods Traffic Receipts...	43,626,567.000	400,000.000	44,026,567.000	47,889,452.525	× 3,862,885.525
Miscellaneous Receipts	1,097,221.000	—	1,097,221.000	1,518,807.351	× 421,586.351
Rentals	345,035.000	—	345,035.000	510,591.830	× 165,556.830
Levies from Station Venders ...	71,399.000	—	71,399.000	70,682.450	716.550
Telegraph Charges	202,618.000	—	202,618.000	223,495.180	× 20,877.180
Rents for Vehicles	52,128.000	—	52,128.000	134,453.610	× 82,325.610
Receipts from Sales of Stores ...	110,691.000	—	110,691.000	159,123.175	× 48,432.175
Hotel Receipts	33,690.000	—	33,690.000	26,913.480	6,776.520
Bank interest...	54,750.000	—	54,750.000	101,387.940	× 46,637.940
Miscellaneous...	226,910.000	—	226,910.000	292,159.686	× 65,249.686
Total	92,442,320.000	1,000,000.000	93,442,320.000	102,785,091.396	× 9,342,771.396

	Estimates				
	Original	Supplementary	Actual account at the end of the year	Settled	Balance
	yen	*yen*	*yen*	*yen*	*yen*
Expenses for Operation :—	82,888,743.000	1,000,000.000	83,888,743.000	82,282,927.318	1,605,815.682
Working Expenses	47,562,115.000	1,000,000.000	48,562,115.000	47,868,192.466	693,922.534
General Expenses	1,529,191.000	—	1,566,897.000	1,566,897.641	—
Maintenance of Way, Works, etc.	9,163,004.000	330,000.000	10,156,709.863	10,156,709.863	—
Transportation Expenses	19,132,576.000	382,000.000	18,795,276.571	18,530,242.815	265,033.756
Traffic Expenses	12,286,559.000	178,000.000	12,364,559.000	12,234,621.878	129,937.122
Electric Expenses	2,033,104.000	—	2,033,104.000	1,739,417.977	293,686.023
Hotel Expenses	38,286.000	—	38,286.000	33,020.367	5,265.633
Shipping Expenses	1,455,301.000	60,000.000	1,518,702.331	1,518,702.331	—
Additional Expenses	1,700,000.000	—	1,843,102.344	1,843,102.344	—
Subsidies to Relief Association ...	225,094.000	—	245,477.250	245,477.250	—
Interest Charges for Loans	32,589,505.000	—	32,589,505.000	31,809,461.625	780,043.375
Interest on Capital	32,384,636.000	—	31,847,288.055	31,067,244.680	780,043.375
Interest on Loans...	84,000.000	—	621,347.945	621,347.945	—
Charges for Loans...	120,869.000	—	120,869.000	120,869.000	—
Refunds and Advances	2,737,123.000	—	2,737,123.000	2,605,273.227	131,849.773
Refunds	1,836,498.000	—	1,836,498.000	1,785,322.147	51,175.853
Advances...	900,625.000	—	900,625.000	819,951.080	80,673.920
Subsidies...	250,000.000	—	250,000.000	—	250,000.000
Subsidies to Light Railways	250,000.000	—	250,000.000	—	250,000.000
Subsidies to Light Railways ...	250,000.000	—	250,000.000	—	250,000.000
Total	83,138,743.000	1,000,000.000	84,138,743.000	82,282,927.318	1,855,815.682

3. CAPITAL ACCOUNT.

Assets and liabilities on the capital account for the year are tabulated below:—

Assets.	*yen.*	Liabilities.	*yen.*
Cash	2,066,432.960	Special Capital	185,079,776.048
Deposits	8,737,467.369	Borrowed Capital	687,150,222.420
Amount receivable	582.870	Public loans	628,645,030.420
Fixed Capital	855,335,061.764	Debentures	44,636,992.000
Stores	7,457,567.026	Debts devolved from the nationalized railways..	13,868,200.000
Working Account	899,122.317	Amount payable	199,812.878
		Reserve	1,609,310.000
		Surplus in subsidies to light railways	250,000.000
		Extra-budgetary account...	207,122.960
Total	874,496,244.306	Total	874,496,244.306

The movement of the fixed capital and the returns at the end of the year is as follows:—

	yen.
Brought over from last account	807,267,437.119
Increase during the year	
Construction and improvement expenses settled	49,200,296.387
Additional expenses settled	1,843,102.344
Land acquired, etc.,	938,681.674
Decrease during the year	
Property scrapped, land transferred, etc.	3,363,591.016
Decrease shown by rectification in the amount transferred from the Army Dept. in 1908	550,854.744
Actual amount at the end of the year	855,335,071.764

The movement of the railway capital during the year and the returns at the end of the year is as follows:—

		Borrowed Capital				
	Special Capital	Loans	Debenture	Debts devolved from nationalized railway	Total	Grand total
	yen	*yen*	*yen*	*yen*	*yen*	*yen*
Brought over from last account...	166,423,753.893	598,167,560.640	44,636,992.000	13,968,200.000	656,772,752.640	823,196,506.533
Increase during the year.						
Railway Capital Revenue ...	19,980,642.948	30,000,000.000	—	—	30,000,000.000	49,980,642.948
Additional Expenses settled ...	1,842,102.344	—	—	—	—	1,834,102.344
Surplus on Stores & Works account	285.510.729	—	—	—	—	285,510.729
Land transferred, etc.	938,681.674	—	—	—	—	938,681.674
Debts increased as a result of redemption and conversion...	—	477,469.780	—	—	477,469.780	477,469.780
Decrease during the year.						
Land transferred, etc.	363.591.016	—	—	—	—	3,363,591.016
Decrease shown by recetification in the amount transferred from the Army Dept. in 1908 ...	550,854.744	—	—	—	—	550,854.744
Loss due to depreciation of public bonds	477,469.780	—	—	—	—	477,469.780
Redemption of debts	—	—	—	100,000.000	100,000.000	100,00 .000
Balance (at the end of year) ...	185,079,776.048	628,645,030.42	44,(36,992.000	13,868,200.000	687,150,222.420	872,229,998.468

The following shows the profit and loss account on the Stores and Works Account.

Loss.	*yen*	Profit.	*yen*
Railway Stores and Works expenses	34,640,208.401	Railway Stores and Works revenue	33,829,287.285
Receipts of preceding year unsettled	42.930	Increase in prices of materials compared with end of preceding year	974,917.608
Expenses unsettled	199,812.878	Receipts unsettled	582.870
		Amount of decrease in advance payment as compared with end of preceding year	112,253.168
		Expenses of preceding year unsettled	208,534.007
Total	34,840,064.209	Total	35,125,574.938
Profit	285,510.729		
Grand total	35,125,574.938	Grand total	35,125,574.938

4. THE RESERVE FUND ACCOUNT, ESTIMATE AND SETTLED.

The estimated revenue for the year was 1,609,310 yen and the expenditure same in amount, against which was settled 1,609,310 yen, a surplus of the same amount being therefore to accrue to the expenditure and to be carried forward to the next account as revenue. Details are shown below:—

REVENUE.

	Estimates	Settled	Surplus
	yen	*yen*	*yen*
Reserve Fund	500,000.000	500,000.000	—
Reserve Fund	500,000.000	500,000.000	—
Reserve Fund	500,000.000	500,000.000	—
Amount brought over from last account	1,109,310.000	1,109,310.000	—
Amount brought over from last account	1,109,310.000	1,109,310.000	—
Amount brought over from last account	1,109,310.000	1,109,310.000	—
Total	1,609,310.000	1,609,310.000	—

EXPENDITURE.

	Estimates	Settled	Surplus
	yen	*yen*	*yen*
Deficit made good	1,609,310.000	—	1,609,310.000
Deficit made godd	1,609,310.000	—	1,609,310.000
Deficit made good	1,609,310.000	—	1,609,310.000

The profit and loss account for the year under review stands as follows:—

Loss.	*yen.*	Profit.	*yen.*
Expenses for operation	82,282,927.318	Receipts from operation	102,785,091.396
Surplus in subsidies to light railways (to be carried forward to next account)	250,000.000		
Net profit	20,252,164.078		
Transferred to reserve fund	500,000.000		
Transferred to capital account	19,752,164.078		
Total	102,785,091.396	Total	102,785,091.396

After deducting the refunds and advances, the foregoing receipts and expenses are classified as follows:—

		yen
Traffic receipts	Parsenger	52,339,347.493
	Goods	46,329,795.195
	Sundry receipts	1,510,675.481
	Total	100,179,818.169
Working expenses	General expenses	1,180,459.084
	Maintenence expenses	10,156,709.863
	Transportation expenses	18,530,242.815
	Traffic expenses	12,234,621.878
	Electric expenses	1,739,417.977
	Hotel expenses	33,020.367
	Shipping expenses	1,518.702.331
	Rents of private railways	129,604.000
	Subsidies to Relief Assoc'ation	245,477.250
	Total	45,768,255.565

	yen
Expenses for railway & tramway inspection and railway surveys...	256,834.557
Additional expenses...	1,843,102.344
Interest charges for loans	31,809,461.625
Total	79,677.654.091
Profit	20,502,164.078
Surplus in subsidies to light railways (to be carried forward to next account)	250,000.000
Net profit	20,252,164.078

The average receipts and disbursements per day and per mile during the year are compared as follows with those for the preceding year:—

	Average receipts and expenses per day		Average receipts and expenses per mile		Average receipts and expenses per day per mile	
	Year under review	Preceding year	Year under review	Preceding year	Year under review	Preceding year
	yen	yen	yen	yen	yen	yen
Traffic receipts	273,715.350	244.757.786	20,237.121	18,736.701	55.293	51.333
Working expenses	125,049.880	118,491.430	9,245.552	9,070.757	25.261	24.851
Profit	148,665.470	126,266.356	10,991.569	9,665.944	30.032	26.482

The receipts from the different sources of revenue and a comparison thereof with the preceding year are as follows:—

				Percentage of each item to total receipts		
	Year under review	Preceding year	Inc. or dec. (△)	Year under review	Preceding year	Inc. or dec. (△)
	yen	yen	yen	%	%	%
Passenger receipts	52,339,348	46,483,237	5,856,111	.522	.520	.002
Goods receipts	46,329,795	41,508,438	4,821,357	.463	.465	△ .002
Sundry receipts	1,510,675	1.344,917	165,758	.015	.015	.000
Total	100,179,818	89,336,592	10,843,226	1.000	1.000	.000

The following table shows the total expenses as classified into different items together with the percentage of each item to the total expenses and receipts and a comparison thereof with the preceding year:—

				Percentage of each item to total expenses receipts		
	Year under review	Preceding year	Inc. or dec. (△)	Year under review	Preceding year	Inc. or dec. (△)
	yen	yen	yen	%	%	%
General expenses...	1,180,459	1,059,191	121,268	.026 .012	.025 .012	.001 .000
Maintenance expenses...	1,0156,710	9,565,693	591,017	.222 .101	.221 .107	.001 △ .006
Transportation expenses	18,530,243	18,157,589	372,654	.405 .185	.420 .203	△ .015 △ .018
Traffic expenses	12,234,622	11,293,359	941,263	.267 .122	.261 .126	.006 △ .004
Electric expenses	1,739,418	1,403,922	335,496	.038 .017	.032 .016	.006 .001
Hotel expenses	33,021	31,201	1,820	.001 .000	.001 .000	.000 .000
Shipping expenses	1,518,702	1,381,122	137,580	.033 .015	.032 .015	.001 .000
Rents of private railways	129,604	129,164	440	.003 .001	.003 .001	.000 .000
Subsidies to Relief Association...	245,477	228,131	17,346	.005 .002	.005 .003	.000 △ .001
Total...	45,768,256	43,249,372	2,518,884	1.000 .455	1.000 .483	.000 △ .028

Note:—Of the two figures under the head "percentage" the upper figures denote percentage to the expenses and the lower to the receipts.

The receipts and expenses, classified into different items and reduced to suitable units, are given as follows together with a comparison of the results in the last five years:—

TRAFFIC RECEIPTS.

	Average mileage worked	Average receipts per mile worked			
		Passenger	Goods	Micellaneous	Total
	mile	*yen*	*yen*	*yen*	*yen*
1911—12	4,950	10,574	9,359	305	20.238
1910—11	4,768	9,749	8,705	283	18,737
1909—10	4,580	9,500	8,193	262	17,955
1908—09	4,513	9,511	7,940	236	17,687
1907—08	3,982	9,642	7,660	221	17,523

WORKING EXPENSES.

	General expenses		Maintenance expenses		Transportation expenses		Traffic expenses	
	Total receipts and expenses	per 100 yen of the same	Mileage worked	per mile worked	Running mileage	per mile of same	Total traffic receipts	per 100 yen of traffic receipts
	yen	*yen*	*mile*	*yen*	*mile*	*yen*	*yen*	*yen*
1911—12	145,948,074	.809	4,950	2,052	57,972,194	.320	98,669,143	12.400
1910—11	132,585,964	1.068	4,768	2,006	52,949,151	.343	87,991,675	12.835
1909—10	124,297,425	.877	4,580	1,850	50,234,318	.398	81,034,649	12.587
1908—09	122,681,220	.982	4,513	1,724	50,569,162	.402	78,757,806	14.433
1907—08	105,527,104	.963	3,982	2,058	43,884,301	.362	68,895,080	15.455

The amount of disbursements made on account of the damages caused by the floods and storms during the year under review aggregates 582,701 yen and fractions, made up as follows:—

	yen
General expenses	336.110
Maintenance expenses	487,893.868
Transportation expenses	1,896.250
Traffic expenses	6,125.473
Electric expenses	6,653.229
Additional expenses	79,796.955
Total	582,701.885

CHAPTER X.

RAILWAY STORES.

1. STORE FUNDS & MATERIALS ISSUED.

The railway stores purchased during the year aggregated 29,425,000 yen in round figures, being approximately 12,088,000 yen more than in the preceding year, while the value of stores left in stock was 7,457,000 yen, an increase of no more than 649,000 yen and fractions. This reassuring result was chiefly an outcome of the efforts made for checking the undesirable tendency to keep a large quantity of stores idle in stock on the part of the consuming offices and departments,—a tendency which had become evident with the progress of construction and improvement works.

Then as regards the materials handed over to the consuming departments, the returns of the surplus at the end of the year figured up at 8,023,000 yen in value, an increase of 904,000 yen as compared with the preceding year. This is to be accounted for by the fact that some of the materials so supplied

outstood the year in stock,—a phenomenon, which, though temporary, is inadvisable, but which shows a tendency to decrease year by year.

Further, the fact that an appreciable quantity of materials supplied is left in stock at the various consuming departments, notwithstanding the existence of the special store funds and the provision of stores in stock, may be regarded as a discouraging feature of store management, and steps are therefore about to be taken to effect amendment in the mode of management so as to limit the storage of such materials to a minimum and to ensure a better use of the store funds.

The store funds existing at the beginning of the year under review, as compared with the end of the same year, are tabulated below:—

Item	At the beginning of the year	At the end of the year	Balance, inc. or dec. (△)
	yen	*yen*	*yen*
Debt:—			
Stores	6,807,996.090	7,457,567.026	649,470.936
Works account	573,775.645	899,122.317	325,346.672
Cash	865,912.458	64,252.411	△ 801,660.047
Total	8,247,684.193	8,420,941.754	173,257.561
Credit:—			
Funds	8,135,431.025	8,420,941.754	285,510.729
Prepayments	112,253.168	0	△ 112,253.168
Total	8,247,684.193	8,420,941.754	173,257.561

Note:—The unsettled receipts and expenses on this account are turned into cash.

The stores existing at the beginning of the year under review, as compared with the end of same year, are tabulated below:—

Item	At the beginning of the year	At the end of the year	Balance, inc. or dec. (△)
	yen	*yen*	*yen*
Steel	571,208	585,224	14,016
Best Yorkshire iron	111,195	126,770	15,575
Iron of ordinary quality	276,849	259,194	△ 17,655
Copper plates	267,689	218,522	△ 49,167
Stays and bar copper	99,039	77,917	△ 21,122
Pig iron	60,189	139,635	79,446
Timber	200,700	333,992	133,292
Paints	215,707	182,059	△ 33,648
Oils for loco working	61,080	45,333	△ 15,742
Coal	365,060	220,408	△ 144,652
Rails	601,836	404,656	△ 197,180
Fish-plates	83,469	83,702	233
Bolts for fish-plates	23,096	23,817	721
Dog spikes	22,889	20,336	△ 2,553
Points and crossings	54,388	113,909	59,521
Sleepers	307,299	319,396	12,097
Girders	266,958	261,981	△ 4,977
Springs for rolling stock (rubber and wire springs excepted)	124,273	170,680	46,407
Tyres	306,715	277,095	△ 29,620
Rolling stock	0	5,785	5,785
Wheels and axles	410,669	597,439	186,770
Tube plates and bac plates	69,764	65,483	△ 4,281
Steam pipes	165,151	215,300	50,149
Cement	22,757	7,894	△ 14,863
Miscellaneous	2,119,318	2,701,080	581,722
Total	6,807,298	7,457,567	650,269

The materials in stock at the end of the year, as compared with the end of the preceding year, are tabulated below:—

Item	Charged to: Expenses for operation			Construction			Improvement			Total		
	At the end of preceding year	At the end of year	Balance, inc. or dec. (△)	At the end of preceding year	At the end of year	Balance, inc. or dec. (△)	At the end of preceding year	At the end of year	Balance, inc. or dec. (△)	At the end of preceding year	At the end of year	Balance, inc. or dec. (△)
	yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
Metals	20,000	14,000	△ 6,000	9,000	14,000	5,000	127,000	16,000	△ 111,000	156,000	44,000	△ 112,000
Timber	30,000	21,000	△ 9,000	11,000	23,000	12,000	28,000	40,000	12,000	69,000	84,000	15,000
Paints	19,000	12,000	△ 7,000	14,000	15,000	1,000	5,000	14,000	9,000	38,000	41,000	3,000
Medicines	5,000	1,000	△ 4,000	1,000	1,000	0	4,000	1,000	△ 3,000	10,000	3,000	△ 7,000
Fuel, coal, oils, etc.	35,000	68,000	33,000	14,000	14,000	0	2,000	3,000	1,000	51,000	85,000	34,000
Tools	0	0	0	19,000	13,000	△ 6,000	25,000	2,000	△ 23,000	44,000	15,000	△ 29,000
Machines	0	0	0	98,000	47,000	△ 51,000	358,000	141,000	△ 217,000	456,000	188,000	△ 268,000
Permanent way materials	730,000	668,000	△ 62,000	1,839,000	1,847,000	8,000	911,000	1,287,000	376,000	3,480,000	3,802,000	322,000
Bridge girders and accessories	17,000	11,000	△ 6,000	393,000	664,000	271,000	423,000	1,329,000	906,000	833,000	2,004,000	1,171,000
Cement and lime	30,000	22,000	△ 8,000	374,000	324,000	△ 50,000	131,000	151,000	20,000	535,000	497,000	△ 38,000
Rolling and floating stock materials	8,000	8,000	0	5,000	5,000	0	3,000	2,000	△ 1,000	16,000	15,000	△ 1,000
Spikes, pins, etc.	32,000	25,000	△ 7,000	14,000	18,000	4,000	12,000	18,000	6,000	58,000	61,000	3,000
Stones	22,000	16,000	△ 6,000	333,000	225,000	△ 108,000	122,000	142,000	20,000	477,000	383,000	△ 94,000
Miscellaneous	262,000	211,000	49,000	119,000	104,000	△ 15,000	369,000	303,000	△ 66,000	750,000	718,000	△ 32,000
Others	10,000	9,000	△ 1,000	83,000	31,000	△ 52,000	53,000	43,000	△ 10,000	146,000	83,000	△ 63,000
Total	1,220,000	1,186,000	△ 34,000	3,326,000	3,345,000	19,000	2,573,000	3,492,000	919,000	7,119,000	8,023,000	904,000

The figures below 1,000 *yen* are omitted.

The total value of purchases made during the year amounted to 41,072,687,824 yen, an increase of 6,502,323.148 yen as compared with the preceding year. The following shows the sum of contracts as divided under the heads of various jurisdictions participant therein.

	yen.
Eastern Divisional Superintendent Office	1,580,002.038
Central Divisional Superintendent Office	2,701,658.747
Western Divisional Superintendent Office	1,414,957.328
Kyushu Divisional Superintendent Office	753,175.875
Hokkaido Divisional Superintendent Office	1,021,314.275
Branch Office and Construction Offices	663,919.163
Head Office	32,937,660.398
Total	41,072,687.824

The principal items of purchase made during the year are shown below:—

Item	Home purchase		Foreign purchase		Total	
	Quantity	Value	Quantity	Valte	Quantity	Value
		yen		*yen*		*yen*
Locomotives	0	0	22	581,486.000	22	581,486.000
Tenders	12	63,000.000	—	—	12	63,000.000
Passenger cars and brake vans	16	110,560.000	—	—	16	110,560.000
Goods wagons	300	247,700.000	—	—	300	247,700.000
Steam motor cars	8	110,808.000	—	—	8	110,808.000
Wheels and axles for cars and locos ... tons	326	51,870.020	6,395	860,188.000	6,721	912,058.020
Tyres for cars and locos ... tons	1,527	190,863.550	1,533	172,693.000	3,060	363,556,550
Springs for cars and locos ... tons	—	—	1,369	206,875.690	1,369	206,875.690
Wheel centres	3,337	88,842.300	—	—	3,337	88,842.300
Rails and fastenings ... tons	108,187	8,059,085.277	25,499	1,927,647.617	133,686	9,986,732.894
Steel girders ... tons	9,962	1,399,416.791	8,581	1,190,369.500	18,543	2,589,786.291
Overbridges ... tons	697	107,649.364	—	—	697	107,649.364
Turntables ... sets	26	43,636.450	—	—	26	43,636.450
Points and crossings ... sets	2,638	198,031.030	—	—	2,638	198,031.030
Signals ... sets	781	86,754.800	—	—	781	86,754.800
Coal ... sets	1,414,562	6,248,971.700	—	—	1,414,562	6,248,971.700
Cement ... casks	367,150	1,343,916.500	—	—	367,150	1,343,916.500
Sleepers	3,719,045	2,871,635.772	—	—	3,719,045	2,871,635.772
Brick	41,136,847	580,038.075	—	—	41,136,847	580,038.075
Metals ... tons	10,725	1,120,493.365	3,743	480,378.569	14,468	1,600,871.934
Mineral oils ... *koka*	72,211	690,993.283	—	—	72,221	690,993.283
Paints	1,494,515	172,911.573	—	—	1,494,515	172,911.573
Varnish ... pounds	25,101	163,584.637	—	—	25,101	163,584.637
Linseed oil ... gallons	53,375	96,419.467	—	—	53,375	96,419.467
Zelkowa wood ... gallons	22,150	391,271.144	—	—	22,150	391,271.144
Cloths ... square *shaku*	—	992,703.384	—	—	—	992,703.384
Miscellaneous	—	8,313,984.417	—	1,907,908.549	—	10,221,892.966
Total	—	33,745,140.899	—	7,327,546.925	—	41,072,687.824

CHAPTER XI.

MAINTENANCE WORKS.

The principal items of maintenance works to tracks, stations, etc. during the year under review in the various Divisional Superintendent Offices will be reviewed in this chapter.

1. EASTERN DIVISIONAL SUPERINTENDENT OFFICE.

North-Eastern Line.

Oyama Station.—Freight shed removed to the premises of Akihabara Station.

Koga Station.—Yard line remodelled.

Omiya Works.—Lathe shop and engine shed repaired.

Utsunomiya Station.—Engine shed reroofed.

Sukagawa-Sasakawa and Shirakawa-Izumisaki Sections.—Slope of the embankments repaired.

Okamoto-Hosekiji Section.—Crib works provided for the abutments of the Kinugawa bridge.

Shiraishi-Okawara Section.—Protections provided for the abutments of the Shiraishi bridge.

Fukushima-Nagaoka Section.—piers of the Surikami bridge repaired.

Yaita Station.—Freight shed reconstructed.

Hinatawada and Shiroishi Stations.—Front platforms and loading stages removed and repaired.

Fukushima Station.—Weigh-bridge repaired.

Matsushima-Kashimadai Section.—Bridge over the water course from the Shinai pond reconstructed.

Hanaizumi-Ichinoseki Section.—Open culverts reconstructed.

Asamushi-Nouchi Section.—Quay-walls for the track repaired.

Joban Line.

Minamisenju Station.—Platform shed repaired.

Ueda and Kunohama Station.—Official residences removed and repaired.

Kameari-Kanamachi Section.—Piers of the Ushikawa bridge renewed.

Tomioka Station.—Main building reconstructed.

Kodaka and Nakamura Stations.—Overbridge repaired.

Haranomachi Station.—Over-bridge repaired; coal shed remodelled and roof repaired.

Kashima Station.—Waiting room on the front platform reconstructed.

Kodaka Station.—Weigh-bridge repaired; freight shed, waiting room and latrines reconstructed; revetment walls rewalled; filling work carried out.

Yotsukura-Kunoshima and Kunoshima-Hirono Sections.—Cuttings repaired.

Iron-girders and retaining walls of the Orimoto, Kegaya and Shiozaki bridges repaired.

Rails inside the Kurakakeyama and Daisan tunnels replaced.

The improvement works to the Uchikata tunnel on the Izumi-Yumoto Section and to the water tank at Takahagi station, both continued from the preceding year, completed.

O-U Line.

Nos. 3, 13 and 19 tunnels repaired.

Kannodaira and Akaiwa Stations.—Switches for the sidings and cross-overs removed.

Niwasaka-Yonezawa Section.—Roofs of the station building and official residences repaired.

Toge Station.—Platform relocated and repaired.

Niwasaka and 5 other Stations.—Platforms and loading stages repaired.

Akayu-Nakagawa Section.—Retaining walls partially rewalled.

Yamagata Station.—Car shed removed and remodelled.

Yokote Station.—Yard lines remodelled.

Mineyama and Iwagake tunnels.—Side walls r paired.

Akita Station.—Main building remodelled.

Hayakuchi-Takanosu Section.—Retaining walls near 57 m. 40 ch. repaired.

Sannaigawa Generating Station.—Part of the water course suppressed and ballast removed.

Remodelling of Akayu, Yamagata and Akita stations continued from the preceding year completed.

Gan-Etsu Line.

Retaining walls for the track near 27 m. 23 ch. and three other places repaired.

Wing-walls for the Kitagawa bridge partially repaired.

Protection and fascine works provided for the east side piers of the Nigorigawa bridge.

Kawageta Station.—Sidings for goods train removed and repaired; loading stages and revetment walls removed and repaired.

Yasukogashima Station.—Waiting room on the front platform removed to Yamagata station and repaired.

Atami and Shiokawa Stations.—Main buildings remodelled and repaired.

Wakamatsu Station.—Car shed, labourers' quarters and other cabins accessory to the engine shed repaired.

Shiokawa Station.—Roof of the freight shed repaired.

Horinouchi, Odera and Inawashiro Stations.—Official residences remodelled and repaired.

Isobe-Matsuida Section.—Road bridge over the line near 14 m. 15 ch. removed and reconstructed.

Yokogawa Station.—Up track remodelled.

Protections provided for No. 12 arch bridge at Usui, and the river-bed paved with concrete.

Wing walls for the Yanase bridge repaired.

Sobu Line.

Ryogokubashi Station.—Freight shed reconstructed and enlarged.

Ryogokubashi-Honjo Section.—Iron girders for the elevated road repaired.

Mikado Station.—Main building reconstructed and enlarged.

Honjo-Kameido Section.—Alteration of gradient continued from the preceding year completed.

2. CENTRAL DIVISIONAL SUPERINTENDENT OFFICE.

This line demanded especially great attention as to maintenance owing to its operation being different in nature from any other line. The following are some of the chief works undertaken during the year.

Tokaido Line.

Shimbashi Station.—Road bridge for goods over the Shiodome canal reconstructed; goods road improved; loading stage and siding removed.

Maibara Station.—Part of the car shed removed to the boiler room attached to the workshop at Shimbashi station.

Yokohama Station partially remodelled.

Oiso Station.—Freight shed reconstructed.

Piers of the Banyu bridge repaired.

Yamanote Line.

Osaki Station.—No. 1 interlocking apparatus repaired.

Shinagawa-Osaki Section.—Rails partially replaced.

Yokohama Line.

Repair of road beds, replacement of sleepers, etc. carried out.

Central Line.

Ochanomizu-Yoyogi Section.—Rails partially replaced.

Sasako Station.—Signal cabin and No. 1 interlocking apparatus repaired.

Shore protection walls for the rivers Chikuma, Torii and Katagai repaired.

Kakizaki-Omigawa Section.—Quay-walls repaired.

Nagaoka Station.—Engine shed reroofed.

Wooden girders of the culverts over the river Ikeda and 13 other places replaced by iron ones.

Hokuroku Line.

Yanagase-Hikida Section.—Rails replaced.

Kanazawa Station.—Main building repainted.

Uotsu Station.—Platform removed.

3. WESTERN DIVISIONAL SUPERINTENDENT OFFICE.

Tokaido Line.

Kusatsu Station.—Main building reconstructed.

Yamazaki Station.—Main building partially remodelled.

Hachiman and Two Other Stations.—Signal apparatus replaced.

Osaka Station.—Parcel room remodelled and reconstructed.

Osaka City Railway Office remodelled.

Kobe Station.—Shed for pig metal repaired.

Kobe works reroofed.

Nishikujo Station.—Main building reconstructed.

Ajigawaguchi Station.—Storemen's quarters removed to Hyogo station and reconstructed into assembly hall for railway employees.

Kobe Works.—Office building removed to Hyogo station and converted into the Institute for Railway Employees.

Hyogo Station.—Main building repaired and remodelled; luggage office and storehouse removed and remodelled.

Himeji Station.—Part of car shed removed to the waiting room in the main building of Hiroshima station and reconstructed.

Okayama Station.—Interlocking apparatus repaired; engine shed reroofed.

Shimonoseki works reroofed.

Wake-Mantomi Section.—Yoshiigawa bridge repainted.

Seidaiji-Okayama Section.—Asahigawa bridge repainted.

Ube-Shimonoseki Section.—Bridges and culverts repainted.

Itsukaichi Station.—Earthen pipes replaced by box culverts.

Miyajima-Kuba Section.—Earthen pipes at 304 m. 18 ch. 16 lin. replaced by under culverts.

Fujiu-Yū Section.—Drain pipes and culverts reconstructed.

Otake-Shimomatsu Section.—Shore protection walls repaired.

Shimomatsu-Tomimi Section.—Rubble mounds for shore protection walls repaired.

Toba-Mitajiri Section.—Shore protection walls repaired and rubble mounds repaired.

Daido and two other stations.—Arrangements of lines altered and dredging work carried out near the pier in Uno harbour.

San-in Line.

Saga Station.—Main building repaired.

Hanazono Station removed and reconstructed.

Fukuchiyama Station.—Shed for the loading stage removed and reconstructed.

Maizuru Station.—Piers in the station yard repaired.

Fukuchiyama Line.

Takeda-Onomichi Section.—Embankments for the piers of the Mukogawa bridge, and the cuttings near 16 m. 24 ch. repaired.

Ikeda Station.—Sidings removed; freight shed removed here from Sumiyoshi station on the Tokaido main line.

Fukuchiyama Station.—Freight shed removed to Mita Station.

Bantan Line.

Shikama Station.—Office for men in charge of cars at Minatomachi station on the Kanshai main line removed to this station.

Ikuno-Arai Section.—Retaining walls near 27 m. 65 ch. repaired.

Hase-Ikuno Section.—Retaining walls near 23 m. 63 ch. repaired and Mukoyama tunnel partially reconstructed.

Rails on the section 20 m. 14 ch. 62 lin. to 30 m. 20 ch. 48 lin. replaced.

Kansai Line.

Yokkaichi Works.—Erecting shop reconstructed; casting shop repaired.

Nagashima-Kuwana Section.—Iron girders of the Ibigawa bridge repainted.

Yatomi-Kuwana Section.—Overbridges reconstructed.

Kawarada Station.—Main building reconstructed.

Kasaoka-Kamo Section.—Cuttings at 73 m. 14 ch. 50 lin. repaired.

Minatomachi Station.—Loading stage removed and repaired; coal stage reconstructed.

Takajaya, Tamaru and Tokuwa Stations.—Revetment walls for the platforms reconstructed.

Isshinden Station.—Main building removed and reconstructed.

Iron girders of the Kumodegawa bridge on the Takajaya-Rokken Section, and of the Kushida bridge on the Tokuwa-Oka section repaired.

Piers of the Ujigawa bridge at 8 m. 72 ch. 72 lin. on the Nara line repaired.

Shijonawade Station.—Main building remodelled.

Unebi Station.—Revetment walls reconstructed.

Koyaguchi, Iwade and Gojo Stations.—Main building reconstructed.

Tokushima Line.

Tokushima Works.—Iron shop partially removed to Kawashima station and reconstructed.

4. KYUSHU DIVISIONAL SUPERINTENDENT OFFICE.

Kagoshima Line.

Moji piers extended.

Moji Station.—Accommodation for employees reconstructed; official residences and platform sheds repainted and revarnished; platform paved with asphalt.

Kokura-Dairi Section.—Iron girders of No. 1 and other bridges repainted.

Kokura Works.—Erecting, sewing and painting shops reroofed; wooden fences repaired; cabin attached to the tinning shop repaired.

Ongagawa Station.—Revetment walls for platforms and loading stages repaired.

Ongagawa-Ebitsu and Ongagawa-Ninobu Sections.—Tracks repaired.

Moji-Futsukaichi and Harada-Omuta Sections.—Bridge girders repaired.

Zasshonokuma Station.—Official residences repaired and remodelled; freight sheds reconstructed and enlarged.

Plate-laying carried out on the section 22 m. 20 ch 22 m. 59 ch. 90 lin.

Harada-Tashiro Section.—Abutments of B No. 4 bridge renewed.

Kurume Station.—Shed for the Imperial carriages reconstructed; Shed for materials for enlargement work and inspector's quarters removed to the sectional temporary out-office.

Tosu Station.—Main and other buildings repainted.

Tashiro Station.—Temporary platforms reconstructed.

Hiroshima, Yoshimatsu and Kagoshima Round Houses.—Office rooms attached remodelled.

Temporary storehouse at Sangaura removed to the storehouse in the Hitoyoshi station yard, and remodelled.

Nagasaki Line.

Retaining walls on the left side of the track near 63 m. 11 ch. on the Nagasaki main line and those for B No. 14 bridge on the Omura-Isahaya section repaired.

Azamibaru Station.—Piers for loading coal repaired.

Official residences in the compounds of the Karatsu castle removed to the premises of Haiki and Saga stations.

Tosu-Saga Section.—Bridge girders repaired.

Hoshu Line.

Additional ballasting, repair of bridge girders, and other works necessary for the maintenance of way, bridges and culverts, carried out.

Chikuho Line.

Wakamatsu Station.—Shore-walls in the station yard repaired; pitching work carried out for the funnels of the former piers.

Wakamatsu-Nogata Section.—Girders of the bridges and culverts over the rivers Wakamiya, Iizuka renewed and repainted.

Namazuta Station.—Main, additional and other buildings reconstructed.

Nogata Station.—Accommodation for employees removed to the station yard and remodelled.

Depressed places on the track, bridges and culverts on the section between 7 m. 15 ch. 50 line. and 7 m. 46 ch. repaired.

5. HOKKAIDO DIVISIONAL SUPERINTENDENT OFFICE.

Hakodate Line.

Ozawa Station.—Yard lines removed.

Nanae and 7 other stations.—Main buildings repaired.

Hakodate Station.—Nos. 1 & 2 officials residences remodelled.

Snow sheds on the section between 90 m. 23 ch. and 130 m. 60 ch. from Hakodate repaired.

Rails on the section between 10 m. 7 ch. and 17 m. 56 ch. from Temiya replaced.

Temiya Round House.—Office room repaired.

Sapporo Station.—Approach to the station ballasted.

Chuo-Otaru-Otaru Section.—Tsugaru road bridge repaired.

Iwamizawa Station.—Platform and No. 1 water tank repaired; engine shed reroofed; storehouse remodelled; shed for the settling pond at the source of the water course repaired.

Muroran Line.

Toasa Station.—Platform replaced.

Kiyomappu and one other station.—Platforms and loading stages removed and repaired.

Yubari Station.—Official buildings and accessary houses repaired.

Foundations of the Kaeda, Yubari and three other bridges repaired.

Worn-out rails on the section 49 m. 40 ch. to 56 m. removed.

Kushiro Line.

Road-beds repaired at various places on the sections 60 m. to 90 m. 50 ch. from Sorachibuto, 103 m. to Shintoku, and Shintoku to Kushiro.

Teshio Line.

Road-beds repaired on the section 5 m. 70 ch. to 28 m. 20 ch.

6. YONAGO BRANCH OFFICE.

San-In Line.

Mikuriya-Yabase Section.—Drain pipes repaired at 15 places.

Tottori Station.—Former construction office remodelled into accommodation for emplyees and repaired; main building partially removed and remodelled in connection with the enlargement work applied to the same building.

CHAPTER XII.

MAINTENANCE & ADDITIONAL WORKS INCIDENTAL TO NATURAL DAMAGES.

The following is a brief abstract of the more important items of maintenance and additional works due to natural damages.

(1) EASTERN DIVISIONAL SUPERINTENDENT OFFICE.

North Eastern Main Line. Repair to buildings in Ueno and several other stations destroyed by the rain storms in June; repair to the wing walls of flood-opening No. 1 over the river Surikami on the Fukushima-Nagaoka section and to the fascine work of the Matsukawa bridge damaged by the floods in July. Consequent on the damage caused by the rain storms in October, repair and restoration work was carried out to the road-bed in the Numazaki station yard, to the embankment of the track between Fukushima and Asamushi, to the piers of the Nouchigawa bridge on the Nouchi-Uramachi section and to the wing walls and river bed pavement of the bridges over the Anemuna and several other rivers and repairs to the fascine work of the Kinugawa bridge on the Yuki-Kawachi section, Mito line.

Joban Line. Repair work carried out to the breaches in the cutting on the Takahama-Ishioka and the Mito-Nakagawa sections, to the drain pipes on the Abazuka-Mito section and to the roofs of the Mito roundhouse.

O-U Line. Restoration work due to the damage in August, 1910 comprised the repair to the Midaregawa bridge, the replacement of the open culvert by a bridge over the Shosuke canal; the widening of the bridge spans of the Mamigasaki and several other rivers; the provision of new retaining walls at a point near 6 m. 63 ch. and two other places; the repair to the beds of two tunnels at 15 m. 24 ch., the removal of debris in the Itaya station yard; the extension of the side slope on the Akaiwa station premises; the provision of fascine work and repair to the wing walls of Hagurogawa bridge No. 3; repair to the retaining wall at the Sarusawagawa bridge; clearance work on the Matsukizawa arch culvert; repair of stone walls and provision of new retaining walls for the Sodegasawa arch culvert.

Gan-Etsu Line. Due to the damage in June, 1911 retaining walls repaired, enlarged and removed at various places; new walls provided for several drains and the pitching of part of the retaining walls replaced by vertical drains, retaining fences provided for the water course, retaining walls repaired for the river Hara and two other places; wing walls of the bridges over the Tatsuki and several other rivers repaired; the Matsunozawa culvert extended.

Takasaki and Shin-Etsu Lines. Due to the damage in June and July, 1911 repair carried out to the breaches in the cutting on the Isobe-Matsuida, the Matsuida-Yokogawa, the Maruyama-Kumanotaira sections, and the the wing walls of the Yanasegawa bridge on the Iizuka-Annaka section. Restoration work, continued from the preceding year due to the damage in August, 1910, was completed on the Minaregawa bridge, on the additional bridge over the river Usuii, on the deviation between Annaka and Isobe, on the breaches at Kumanotaira.

Sobu Line. Due to the damage in April, 1911 repair carried out to the breaches in the cutting on the Ichinomiya-Taito section and to the buildings and wal board on nearly all station premises throughout the line.

(2) CENTRAL DIVISIONAL SUPERINTENDENT OFFICE.

Tokaido Line. Work continued from the preceding year was completed as regards the repair of the cracks in the tunnel on the Kambara-Okitsu, the renewal and extension of the Sakaigawa bridge on the Ofuna-Fujisawa section, the extension of the river Aizawa shore protection on the Yamakita-Oyama section and of the cross-dikes in the river Sakai; the sand-arrester for the breaches near 138 m. 64 ch. on the western bank of the river O-i as well as deviation of the track at the same place; renewal and extension of the Nishi-Yamazawa bridge on the Kakegawa-Fukuroi section, while the renewal and extension of the Tochiyamagawa bridge were brought to the verge of completion. Considerable damage as done to the buildings by a terrible storm which took place at daybreak on the morning of June 19th, but emergency and restroation works were timely carried out and finished by the end of the year. On July 26th the line skirting the coast sufferred from a visit of tidal wave, the damage being done to the revetment wall and road-bed of the line between Shimbashi and Shinagawa and the shore protection and embankment on the Okitsu-Kambara section,

which were, however, repaired in due time. Restoration work was completed by 8 parts for the shore protection and cross-dikes in the river Kiku on the Kanaya-Horinouchi section which was damaged by the heavy storms that raged for several days in early August.

Central Line. Owing to the overflow occasioned by torrential downpour in early August, the shore protection and connected embankment were breached and washed away on the Otsuki-Hatsukari section, the wing wall of the flood-opening demolished and the embankments at both ends of the bridge washed away on the Ryuo-Niragasaki section, the ditch pavement destroyed under the Mosawagawa arch bridge on the Obuchizawa-Fujimi section, a slip occurred near 74 m. on the Agematsu-Suhara section, the shore protection and retaining wall demolished near 18 m. 43 ch. and another place on the Tajima-Kozoji section. Emergency repair extended to the damage with due promptitude was followed by restoration and improvement work of a more permanent nature which is still in progress. Repair and improvement works were completed on the damage to the wing wall, and embankment at back of the abutments of the Miyakawa bridge on the Aoyagi-Chino section, the pitching of the open culvert over the Sekizawa on the Senba-Niekawa section, the bed pavement at the entrance of the Sakurazawa drainage tunnel, the shore protection, retaining wall, pitching etc. along the river Kiso at various places on the Niekawa-Narai and the Yabuhara-Kiso-Fukushima sections, the embankment on the Suhara-Nojiri section, and the culvert on the Kozoji-Katsukawa section. The downpour also involved the Shinonoi-Shiojiri section in damage, including the landslip in the left side cutting on the Obasute-Omi section and the collapse in the left hillside on the Nishijo-Akashina section (July 2nd) and the bursting of embankment on the section and the collapse of the hillside on the Tazawa-Matsumoto section. Restoration work was pushed on with vigour and brought to completion in due time. The line on the Obasute-Omi section was blocked by a landslip in the right hill side but the traffic was soon resumed by means of a deviation on the left side. The foundation being, however, still in an unsettled condition, restoration work remains to be started.

On March 5th, 1912, the line on the Nishijo-Akashina section was under heaps of debris occasioned by the landslip in the left side cutting. Clearance work was soon carried out and through service was early resumed, the restoration work subsequent thereupon being still in pogress.

Shin-Etsu Line. The span-widening and the iron girder laying work on the Yukawa and Saikawa bridges was brought to completion. Heavy rains in late June and July and early August did much damage to the line. Then the embankments were washed away at both ends of the flood-opening over the Kamikawa on the Oya-Ueda section, the wing wall of the Yatezawa bridge and the end slope of the embankment breached on the Ueda-Sakaki section, the embankment between Yashiro and Chikumagawa bridge was washed away, lanslip took place in the left hillside near 82 m. 20 ch. from Takasaki, the embankment was washed away and the track buried under debris on the Mure-Kashihara section, the wing wall of the Sekikawa bridge was breached on the Kashihara-Taguchi section, the cutting on the left side collapsed on the Tanihama-Natate section, the abutments and wing walls of the Furukawa and the Maejimagawa bridges as well as the embankment near by were destroyed on the Raikoji-Miyauchi section, the left side embankment to the open culvert over the river Aoki collapsed on the Omigawa-Kujiranami section. Emergency repair followed by restoration work was carried out to these damages. Owing to the rainfall in November 19th, the left side cutting slope collapsed near 8 m. 17 ch. on the Tanihama-Natate section and the track was blocked by heavy boulders. Clearance work was carried out without loss of time. On February 28th, 1912 a landslip was occasioned of thawing in the right hillside near 101 m. 30 ch. on the Sekiyama-Nihongi section, the debris destroying the snowshed and burying the track under its heaps. A deviation was laid and the line reopened to traffic without much delay.

Hokuroku Line. Consequent on the heavy rainfall in early August restoration work was carried out to the breaches in the right side cutting near 7 m. 42 ch. on the Tsuruga-Sugitsu section.

(3) WESTERN DIVISIONAL SUPERINTENDENT OFFICE.

San-yo Line. No item worth mentioning was undertaken except the emergency work as well as restoration and improvement work carried out to the breaches in the cutting and retaining wall consequent on the floods that devastated the Mihara-Hongo section.

(4) KYUSHU DIVISIONAL SUPERINTENDENT OFFICE.

Kagoshima Line. Restoration work carried out to the damaged embankments on the Fukuma and Ohata station premises, the temporary roundhouse on the Kagoshima station, goods sheds and official residences at Kagoshima and Kokubu stations, feed water shed, No. 2 storehouse and goods office at Kagoshima station, waiting room at Shigetomi station, embankment and retaining wall near 106 m. 21 ch. on the Kagoshima main line, embankments and cutting near 111 m. 49 ch. and 3 other places, sheds and guard houses on the Yokogawa-Shigetomi section.

Nagasaki Line. Restoration work carried out to the cutting near 95 m. 14 ch. on the Nagasaki main line, wing walls of bridges B No. 3 and B No. 5 on the Okusa-Nagayo section and the embankments on the Omura-Isahaya and the Okusa-Nagayo sections.

Hoshu Line. Restoration work carried out to the cutting and retaining wall near 18 m. 33 ch. on the Tagawa line, the Akamatsu tunnel on the Hoshu main line, embankments at various places on the same line.

(5) HOKKAIDO DIVISIONAL SUPERINTENDENT OFFICE.

Hakodate Line. Restoration work carried out to embankments on the Sunagawa-Takikawa section, cutting slope on the Mori-Ishikura section, retaining walls on the Kombu-Kariputo and a few other sections, wing walls of the bridge over the Yurabe and several other rivers, wing walls of the Nakagawara roadbridge on the Yakumo-Yamazaki section, the cribwork for the Yoichigawa bridge and shore protection on the Nembetsu-Niki section, shore protection wall along the river Sorachi (No. 1) on the Takikawa-Sunagawa section; the shore protection walls enlarged at several places on the Iwamizawa-Horonaibuto section, Horonai line.

Muroran Line. Restoration work carried out to embankments at several places on the Momijiyama-Kaede and other sections.

Rumoi Line. Filling work carried out to the embankment on the Ebishina-Togeshita section.

Kushiro Line. Restoration work comprised the shore protection along the river Chubetsu on the Asahigawa-Henbetsu section, No. 2 Satsunaigawa bridge on the Satsunai-Obihiro section, the extended embankment and enlarged protection cribwork on the same section.

Teshio Line. Filling work carried out on the Wassamu-Kenfuchi and the Kenfuchi-Shibetsu sections.

(6) YONAGO BRANCH OFFICE.

San-in Line. No item worth mentioning undertaken except restoration work carried out to the breaches in the cutting on the section between 83 m. 1 ch. and 83 m. 4 ch. 50 lin. section, San-in main line.

CHAPTER XIII.

ADDITIONAL WORKS.

The principal items of the additional works of the lines under control of the respective Divisional Superintendent Office will be mentioned below:—

I. EASTERN DIVISIONAL SUPERINTENDENT OFFICE.

North-Eastern Line.

Akihabara Station.—Electric capstan for tractive purpose provided.

Omiya Works.—Oil shed, shed for iron material, and Kawaguchi-machi overbridge constructed; electric machine shop, and watchmen's cabin for the lathe shop repaired and enlarged.

Oji Station.—Main building removed and enlarged.

Ueno Station.—Office building and printing house repaired and enlarged.

Shirakawa Station.—Tail drain pipes replaced, removed and repaired.

Ujiie-Kataoka Section.—Retaining walls constructed and fascine works provided for the Arakawa bridge.

Fukushima-Nagaoka Section.—Banks constructed for the Surikamagawa bridge.

Shiraishi Station.—Abutments of culverts rewalled; main building enlarged.

Shirakawa Station.—Shed for the down-platform repaired and enlarged.

Fukushima Round House.—Foundation provided for the motor in the erecting shop for the purpose of driving lathes.

Nagaoka Station.—Platform shed constructed.

Sendai Station.—Quarters for assistant station master and other employees constructed.

Yahaba Station.—Goods shed constructed.

Iwanuma and Ishitoriya Stations.—Main buildings enlarged.

Mizusawa Station.—Freight shed enlarged.

Chibiki-Nobechi Section.—Snow shed extended.

Morioka Station.—Shore protections constructed for the river Sazareishi.

Yoshida Station.—Iron pipes and reservoirs for feeding purpose provided.

Hirone-Kido Section.—Drains constructed and repaired; watchmen's cabins at level crossings constructed; sidings increased.

Sumidagawa Station.—Office room constructed.

Tsuchiura Station.—Official residences constructed.

Sukegawa Station.—Main building constructed.

Takahagi Station.—Overbridge reconstructed.

Aomori Station.—Loading stage removed and roads opened; also water tank equiped with iron

Fukuoka-Kanedaichi Section.—Earthen pipes pipes for feeding purpose.
replaced by open culverts.

Joban Line.

Kameari, Kawajiri and Ueda Stations.—Construction of overbridge continued from the preceding year finished.

Kashiwa and Izumi Stations.—Over bridges constructed.

Hara-Sekimoto Section.—Flood openings for the river Satone increased.

Haranomachi and Kashima Stations.—Waiting rooms on platforms enlarged.

O-U Line.

Yonezawa Station.—Solidifying of the ground carried out in connection with remodelling of the yard lines.

Akaiwa Station.—Retaining walls extended.

Niwasaka Station.—Sand shed provided for the engine shed.

Yonezawa Station.—Main building enlarged; ash-pits and baths provided for the engine shed.

Toge, Yamagata and Odate Stations.—Toilet stands provided for the platforms.

Niwasaka Station.—Sidings laid.

Nukanome Station.—Waiting rooms on the platform enlarged.

Yamagata-Urushigawa Section.—Pitching on the slope of the embankments extended.

Yamagata Station.—Ash-pits constructed.

Tendo and Futatsui Stations.—Freight sheds enlarged.

Yusawa-Jumonji Section.—Retaining walls reconstructed and extended.

Tsuchizaki Works.—Tempering furnace constructed.

Hayakuchi-Oshaka Stations.—Yard lines added.

Miuchigawa Generating Station.—Sand fence for the approach of the water course extended.

Oshaka and Namioka Stations.—Freight sheds reconstructed and enlarged.

Gan-Etsu Line.

Nakayamajiku-Yamagata Section.—Flood embankments on the right side of the track extended.

Wakamatsu Station.—Bath constructed.

Yamagata Station.—Yard lines increased; down-platform reconstructed and enlarged.

Takasaki and Shin-Etsu Lines.

Shinmachi and Kuragano Stations.—Yard lines increased.

Fukaya Station.—Shed attached to the main building removed to the waiting room, reconstructed and enlarged.

Annaka Station.—Official residences constructed.

Pitching made and culverts constructed between the Usui Nos. 1 & 2 tunnels.

Kumanodaira-Yokogawa Section.—Retaining walls constructed near 19 m. 20 ch.

Sobu Line.

Ichikawa Station.—Sidings laid.

Inage Station.—Sidings added.

Tsudanuma and Sakura Stations.—Official residences constructed.

Choshi Station.—Water tank enlarged.

2. CENTRAL DIVISIONAL SUPERINTENDENT OFFICE.

Tokaido Line.

Shimbashi Station.—Storehouse accessory to the quarters for employees in charge of power cables constructed.

Coal testing house built in connection with the construction of O-i Works.

Yokohama, Okitsu, Ejiri and Fukuroi Stations.—Sidings increased.

Kozu Station.—Waiting rooms enlarged.

Koyama-Gotemba Section.—Ditches reconstructed near 66 m. 60 ch.

Shizuoka and Otaka Stations.—Loading sta enlarged.

Nagoya Station.—Sidings increased, and ear work carried out; culverts expanded; well for th engine shed dug.

Maibara Station.—Quarters for inspectors o electric lighting in trains constructed.

Taketoyo Station.—Main building enlarged.

Shimbashi, Mochimune and Taketoyo Stations.—Official residences and accommodation for employees reconstructed and enlarged.

Haramachida Station.—Sidings increased.

Yamanote Line.

Jujo Station.—Official residence for the station master constructed.

Osaki-Meguro Section.—Gradient of the track inside the Nagasaki tunnel altered.

Central Line.

Iidamachi Station.—Car cleaning shop constructed.

Nakano Station.—Sidings increased.

Kokubunji-Tachikawa Section.—Under drain pipes replaced by culverts.

Otsuki-Hatsukari Section.—Retaining walls constructed near 27 m. 15 ch.

Sasako-Hajikano Section.—Ditches near 32 m. 71 ch. diverted.

Kofu Station.—Quarters for inspectors of electric lighting in trains built; heavy oil tank enlarged.

Yomotsu-Torisawa Section.—Yanagawa tunnel enlarged.

Shiojiri Station.—Shed for the up and the down platform enlarged.

Hachioji, Kofu, Matsumoto and Kisofukushima Stations.—Baths attached to the engine houses construted.

Shiojiri Station.—Yardmen's quarters constructed.

Obasute-Omi Section.—Abutments of the Nagae bridge reconstructed.

Saijo, Akashina, Torizawa and Matsumoto Stations.—Sidings added.

Obasute Station.—Main building reconstructed and enlarged.

Shin-Etsu Line.

Construction of Nihongi station between Sekiyama and Arai, continued from the preceding year finished.

Nagaoka Station.—Platform shed reconstructed and enlarged.

Arai Station.—Turntable and water provided.

Miyota, Kakizaki, Yashiroda and Nuttari Stations.—Sidings added.

Nagano, Sekigawa, and Naoetsu Stations.—Official residences removed, reconstructed and enlarged.

Snow sheds at 99 m. 13 ch. extended.

Part of the Tsukayama No. 3 tunnel repaired.

Kuziranami-Kashiwazaki Section.—Revetment walls reconstructed for the Ugawa bridge.

Hassaki-Omigawa Section.—Shore protection walls constructed near 15 m. 28 ch. and three other places; restoring work applied to the cracks on the hill slope on the right of the track near 15 m. 50 ch.

Yashiro Station enlarged.

Hokuroku Line.

Sugaya bridge 56 m. 23 ch. from Tsuruga reconstructed.

Shore protection walls constructed near 99 m. 55 ch. from

Ishiga Station.—Platform enlarged.

Kanazawa Station.—Sidings increased.

Kanazawa Works.—Mining shop and tool cleaning shop constructed.

Tomari Section.—Freight shed reconstructed.

3. WESTERN DIVISIONAL SUPERINTENDENT OFFICE.

Tokaido Line.

Osaka Station.—Employees' quarters constructed; freight shed enlarged.

Inari Station.—Main building enlarged.

Nada, Baba and Kobe Stations.—Yard lines increased.

Ujigawa road bridge constructed at 376 m. 3 ch. 72 lin.

Sakurajima Station.—Sidings additionally laid near the station.

San-yo Line.

Wadamisaki Station.—Equipments for passenger traffic made.

Takatori and three other stations.—Waiting rooms enlarged.

Kaidaichi Station.—Platform shed enlarged.

Yoshikawa Station.—Freight shed enlarged.

Shimonoseki Station.—Sanyo Hotel in the station yard enlarged.

Kozuki Station.—Main building enlarged.

Mantami Station.—Arrangements of the yard lines altered.

Onomichi Station.—Sidings increased.

Okayama Station.—Gradient in the station yard altered.

Shioya-Tarumi Section.—Cuttings provided with retaining walls and lines with concrete.

Onomichi-Itozaki Section.—Rubble mounds provided for the shore walls.

Ohata-Yanaizu Section.—Pitching made for the cuttings near 233 m. 43 ch. 50 lin. and three other places.

Rubble mounds provided for the short walls near Ohata station on the Fujiu-Yu section and on the Yu-Ohata section.

Yū-Ohata and Tomimi-Mitajiri Sections.—Protection walls constructed for the base of the shore embankments.

Toda-Tomini Section.—Cuttings extended near 269 m. 7 ch.

Ube-Onoda Section.—Pitching made for the cutting near 302 m. 57 ch.

Seno and two other Stations.—Freight sheds constructed and sidings increased.

Yoshiura Station.—Lamp room enlarged.

Yano Station.—Drain pipes laid.

San-in Line.

Fukuchiyama Station.—Revetment walls for the loading stage enlarged.

Base of the retaining walls strengthened with concrete near 10 m. 30 ch.

Retaining walls extended near 45 m. 48 ch. 44 lin.

Pitching made for strengthening the base of the wing-walls for the abutments of the Isagawa bridge.

Fukuchiyama Line.

Ishiu and Aino Stations.—Sidings increased.

Tanikawa-Kaibara Section.—Pitching made for the cuttings near 48 m. 41 ch.

Hase-Ikuno Section.—Cuttings extended and pitching made near 25 m. and three other places.

Ikuno-Nii Section.—Cuttings extended and retaining walls constructed near 29 m. 65 ch.

Koro Station.—Down platform constructed.

Ikuno Station.—Waiting room on the front platform enlarged; lever for double switch installed.

Kameyama Station.—Sidings laid.

Kansai Line.

Minatomachi Station.—Dotonbori landing pier constructed opposite the station.

Kashiwara Station.—Overbridge constructed.

Koriyama Station.—Revetment walls for the platform enlarged.

Imamiya Station.—Loading enlarged.

Okawara Station.—Sidings added.

Yokkaichi Station.—Retaining walls for loading stage constructed.

Cuttings and retaining walls constructed near 73 m. 28 ch. and one other place on the Kasagi-Kamo section.

Akogi Station.—Platform shed enlarged.

Oka Station.—Revetment walls for the down platform enlarged.

Toba Station.—Sidings added.

Yamada-Toba Section.—Rubble mounds provided for the embankment near 7 m. and one other place.

Futamigaura-Toba Section.—Rubble mounds provided for the shore protection near 42 m. 20 ch.

Tanabe-Nagao Section.—Rubble mounds provided for the cuttings near 11 m. 1 ch. 40 lin.

Unebi Station.—Shed for the front platform constructed.

Wakayama Station.—Freight shed constructed; retaining walls reconstructed and extended near 28 m. 66 ch.; fascine work made for the Sogawa bridge near 38 m. 30 ch. 24 lin.; cuttings repaired and retaining walls constructed near 42 m. 10 ch.

Sanuki Line.

Takamatsu Station.—Reservoir constructed in the station yard.

Sakade Station.—Main building enlarged.

Kinashi and two other Stations.—Shed for well constructed.

Tokushima Line.

Nishinoe-Kawashima Section.—Rubble mounds provided for the Jingo road bridge.

4. KYUSHU DIVISIONAL SUPERINTENDENT OFFICE.

Kagoshima Line.

Superintendent Office at Moji reconstructed.

Walls constructed for the drain on the left side of the track near 2 m. 20 ch. on the Kagoshima main line.

Wickets constructed for No. 30 level crossing and 8 other places on the Moji-Dairi Section.

Tobata Station.—Coal trolley lines laid.

Kokura, Tobata, Kurosaki, Tosu, Shigetomi, Kurino, Kagoshima and Sakamoto Stations.—Siding added.

Tobata Station.—Gradient of coal trolley lines altered.

Arch bridge replaced by culvert at 38 m. 55 ch. 87 lin. on the Kagoshima main line.

Omuta Station.—Freight shed enlarged.

Retaining walls constructed for the embankments on the left side of the track at 61 m. 5 ch. on the Kagoshima main line.

Tosu Station.—Assistant station master's quarters constructed.

Kawajiri Station.—Loading stage on the Hama line enlarged.

Box culvert constructed at 183 m. 53 ch. 30 lin on the Kagoshima main line.

Shore walls constructed on the left side of the track near 217 m. 64 ch. on the Kagoshima main line.

Shingakuji provisional platform constructed.

Hitoyoshi Station.—Coal line devoted to the use of the engine shed extended; fence for coal stage constructed.

Cuttings on the section between 194 m. 49 ch. 70 lin. and 194 m. 53 ch. 80 lin. on the Kagoshima main line repaired.

Kaiden Official residences and employees' boarding-house removed to the boarding-house for employees and sectionmen at Ohata Station.

Hitoyoshi Station.—Temporary engine shed reconstructed into charcoal shed and enlarged.

Nagasaki Line.

Box culverts constructed and embankments repaired at 74 m. 7 ch. 64 lin. on the Nagasaki main line.

Kubota Station.—Main building enlarged.

Kitagata Station.—Freight shed removed, reconstructed and enlarged.

Saga Station.—Floor of the front platform paved with asphalt.

Karatsu Station.—Base of drain pipes in front of the station strengthened.

Meotoishi Station.—Lamp room constructed.

Hoshu Line.

Yukihashi Station.—Shed for waste articles constructed.

Imatsu Station.—Freight shed constructed.

Kizuki Station.—Freight shed enlarged.

Chikuho Line.

Sunken places on the up line between 5 m. 28 ch. and 5 m. 44 ch. on the Ida line repaired.

Kaneda Station.—Overbridge constructed.

5. HOKKAIDO DIVISIONAL SUPERINTENDENT OFFICE.

Hakodate Line.

Fascine work made and enlarged near 58 m. from Hakodate.

Onuma Station.—Yard lines increased.

Kutchian Station.—Ash-pits additionally constructed; rails laid on the Kunibetsugawa bridge and 29 other places.

Indicators installed between 0 m. and 131 m. from Hakodate.

Mori-Ishikura Section.—Fences built.

Hakodate and 7 other Stations.—The buildings roofed with galvanized iron.

Kucchian Round House enlarged.

Shed constructed for the Hakodate booking office for the connection service of land and sea.

Chuo-Otaru Station.—Main building enlarged.

Otaru Station.—Revetment walls for the platform reconstructed.

Iwamizawa Station.—Approach to the station repaired; foundation for interlocking apparatus improved.

Kuwazono and Sapporo official residences enlarged.

Superintendent Office at Sapporo enlarged.

Iwamizawa Works.—Office building reconstructed; sidings added.

Ikushumbetsu and five other Stations.—The main buildings reroofed with galvanized iron.

Sapporo Station.—Storehouse constructed; timber framed brick storehouse reconstructed.

Ebeotsu and three other Stations.—Distant signals installed.

Shore walls extended near 5 m. 60 ch. on the Horonai line.

Muroran Line.

Tomakomaki Station.—Main building reconstructed.

Yasuhira and Mikawa Stations.—Buildings remodelled and official residences enlarged.

Oigawa Station.—Interlocking apparatus repaired.

Retaining walls constructed for the track between 0 m. 11 ch and 27 m. 50 ch. on the Kaede line.

Kaede Station.—Sidings increased.

Momijiyama and one other Station.—Signal apparatus reconstructed.

Kushiro Line.

Yamabe and two other Stations.—platform reconstructed.

Kushiro Station.—Main building enlarged; ash-pits attached to the engine shed reconstructed.

Shironuka Station.—Main building enlarged.

Toshibetsu Station.—Main building reconstructed.

Guard rails laid on the 8 bridges on the Kushiro-Shintoku section.

Wing walls constructed for the Tokachigawa bridge.

Kushiro and one other Station.—Iron pipes for water feeding purpose laid.

6. YONAGO BRANCH OFFICE.

San-In Line.

Hogi, Tomari and Oyama Stations.—Front platform, waiting rooms and latrines attached to the same constructed.

Yodoe-Mikuriya Section.—Drains constructed 22 m. 29 ch. 50 lin. from Sakai.

Sleepers additionally laid on the section 10 m. 63 ch. to 73 m. 35 ch. 10 lin. 6 *ken* from

Sakai, and 5 m. 59 ch. 30 lin. to 27 m. 29 ch. 85 lin. 1 *ken* section from Yonago.

Yonago and 23 other Sections.—No 2 interlocking apparatus and switch indicators installed.

Akasaki-Yabase Section.—Drains at 32 m. 20 ch. 80 lin from Sakai extended.

Tottori Station.—Main building enlarged.

CHAPTER XIV.

IMPROVEMENT WORKS.

The following is an abstract of the more important items of improvement works carried out during the year under review:—

(1) EASTER DIVISIONAL SUPERINTENDENT OFFICE.

North Eastern Main Line. Duplication work between Ueno and Nippori and construction of new tram car station at Uguisudani completed 7 parts.

Kurihashi-Koga Section.—Strengthening of the Tonegawa bridge with iron girders completed.

Iwanuma Station.—Installation of No. 1 interlocking appartus finished 8 parts.

Shiroishi-Okawara Section.—Construction of a new intermediate station completed.

Reconstruction of Omiya station taken in hand.

Reconstrution of Aomori station and the erection of a lathe shop in the Morioka Works completed.

Track re-arrangement in the Ueno station yard and enlargement of Uramachi station were completed 7 parts for the former and about 8 parts for the latter, when the work had to be temporarily suspended owing to the difficulty in proceeding with the purchase of land.

Enlargement of Ichinoseki station completed about 7 parts.

Omiya Works.—Laying of additional girders for the crane completed; enlargement of No. 2 smiths' shop and of No. 1 painters' shop completed; erection of tool menders' shop completed about 3 parts; enlargement of tyre-fitting house completed one part; construction of dressing room taken in hand.

Morioka Works.—Construction of drying chamber completed.

A start was made with the formation of snow-guard plantation alongside the line and purchase of land to the end was commenced.

Re-roofing of railway building with incombustible materials carried out and subsidies for similar purpose granted to the inhabitants with their cottages adjacent to the line.

Joban Line. *Mahashi-Kashiwa Section.*—Remaining portion of construction of new intermediate station completed.

Duplication between Kita-Senju and Abiko.—Remaining portion of the earthwork on the Kameari-Matsudo section completed; bridge work over the rivers Nakagawa and Edogawa completed about 4 parts and other works about 8 parts.

Duplication between Kita-Senju and Kameari.—Reconstruction of the Ayasegawa bridge completed, purchase of land finished and the section opened for traffic in the year under review.

Strengthening by braces of the Tonegawa bridge on the Abiko-Totte section and reconstruction of Nakoso station completed.

Re-roofing of railway buildings with incombustible materials carried out and subsidies granted for similar purposes on the inhabitants with their houses near the line.

O-U Line. *Deviation between Niwasaka and Akaiwa.*—Re-railing of the Niwasaka-Sekine section and the laying of additional sleepers thereon completed.

Niwasaka-Akaiwa Section.—Lengthening of No. 1 tunnel completed.

Re-roofing of offices and other buildings with incombustible materials carried out on the Sekine and the Yamagawa station premises.

Young shoots were planted alongside the line on the Akaiwa-Itaya, Tateoka-Nozoki, Gojonome-Hataori and Odate-Aomori sections with a view to forming snow-guard plantations, while a nursery was formed near by Jinguji station and purchase of additional land for afforestation was made on the Oiwake-Okubo section.

Gan-Etsu Line. A start made with the reconstruction of Nakayamajiku station and earthwork commenced.

Re-roofing of station buildings, official residences and employees' accommodation, etc. carried out on the Yasukojima-Okinajima section.

Takasaki and Shin-Etsu Lines. Deviation between Shimmachi and Kuragano and the strengthening of the Karasugawa bridge with iron girders completed, and a temporary diviation suppressed.

Re-building of the upper and down Usuigawa bridges completed.

Electrification of the Yokokawa-Karuizawa Section.—Erection of the Yokokawa charging station and electric plant, the Yokokawa generating station, con-

struction of "link" to the coaling pier, provision of filter-bed and well, platform retaining walls for Yokokawa and other stations completed, while construction of water reservoir at the Yokokawa generating station was taken in hand, the work to be continued in the next year.

Sobu Line. Enlargement of Chiba and Sakura stations, started in the previous year, completed.

Honjo Works.—Erection of sawmill completed.

Enlargement of Honjo Station.—Purchase of land involved by the work concluded.

Ryogoku-Makuhari Section.—Re-railing carried out to a length of about 23 m. 44 ch.

(2) CENTRAL DIVISIONAL SUPERINTENDENT OFFICE.

Tokaido Line. *Duplication Work continued from the preceding year.*—Erection of abutments and piers for the Oigawa bridge on the Shimada-Kanaya section completed, and laying of iron girders for the same completed 5 parts; foundation work on the bridging over the river Tenryu on the Nakaizumi-Tenryu section finished 4 parts; laying of iron girders for the Kisogawa bridge on the Kisogawa-Gifu section nearing completion.

Improvement Work on the Tracks and Buildings between Shimbashi and Hodogaya.—Erection of additional bridge over the river Rokugo completed about 8 parts; plate laying on the various sections made good progress; purchase of land finished about 6 parts.

Hamamatsu Works.—Remaining portion of the erection of generating station and smithy completed; construction of erecting and lathe shops and store room attached thereto completed 8 parts; office and accessory buildings completed about 8 parts; laying of a spur line practically completed.

Regrading of the Numazu-Hara and other sections completed.

Erection of signal cabins on the Hodogaya-Kawakami and 6 other sections completed.

Shinagawa Station Enlargement.—Reclamation work finished about 1 part, fill-in and fore shore protion works being finished.

O-i Works.—Purchase of land finished and a start made with ground-making, inclusive of fill-in, cutting, retaining wall, pitching, etc.

Kashihara Station.—Laying of additional sidings and erection of goods platform and charging station completed.

Enlargement of Shimada Station completed about 7 parts, installation of No. 1 interlocking apparatus and erection of signal cabin taken in hand.

Ofu Station.—Deviation of tracks, renewal of interlocking apparatus and erection of additional signal cabin completed about 6 parts.

Nagoya Station.—Laying of additional sidings completed about 6 parts; ground-making, fill-in and deviation of approaches completed about 6 parts; these forming part of the expansion work of the station to be continued.

Strengthening with iron girders the bridges over the O-i, Fuji, Tenryu, Nagara and Kiso completed.

Re-railing was carried out to an aggregate length of 21 m. 12 ch. on the Hodogaya-Totsuka and other sections, roadbed improvement for a matter of 143 miles and laying of additional sleepers for 120 miles.

The Atsuda rail-and-water 'link' and connected works was completed and opened for traffic in the year under review.

Yamanote Line. Enlargement of Ikebukuro station completed and construction of Gotenba station on the Osaki-Meguro section completed.

Central Line. Consequent on the damage by floods in the previous year, remaining portion of the deviation of the line carried out for a matter of 71 chains on the Otsuki-Hatsukari and the Hatsukari-Sasago sections.

Enlargement of Matsumoto and Shiojiri stations completed.

Erection of new station on the Hajikano-Enzan section completed 8 parts.

Erection of bridge for O-i station completed.

Replacement of 60 lb. rails by 65 lb. carried out for a matter of 2 m. 74 ch.

Shin-Etsu Line. Erection of Saigawa signal station on the Shinonoi-Nagano section, continued from the preceding year, completed.

Strengthening the line with additional sleepers completed for a matter of 96 m. 70 ch.

Strengthening of the Saigawa bridge with iron girders completed.

Erection of new intermediate station on the Sakai-Yashiro section completed.

Construction of platforms for Ichinokido and Nuttari stations completed.

Replacement of 60 lb. rails by 75 lb. carried out for a matter of 1 m. 62 ch.

Reconstruction and enlargement of bridges over the rivers Kami, Chikuma, and Maejima.

Improvement on roadbeds carried out to an aggregate length of 62 m. 62 ch. on various sections.

Installation of No. 1 interlocking apparatus in Saigawa station taken in hand.

Turntable for Toyono station made good progress.

Charging station for train lighting in Niigata station in progress.

Hokuroku Line. Deviation of the line between Tsuruga and Kanagasaki completed.

Mikuni rail-and-water 'link' and connected works.—platelaying and the relocation and improvement of Kanatsu station and repair of Otoro, Morita and Maruoka stations incidental to the work, completed, while the purchase of land along the line, which has suffered from damages due to the construction of the line, finished.

Erection of new intermediate station on the Kanazawa-Tsubata section completed.

Purchase of land fo rthe second line to be laid between Nakanogo and Tsuruga, enlargement of Nakanogo station, ground-making of part of the Tsuruga station yard, erection of new intermediate station on the Matsuto Kanazawa section still in progress.

Replacement of 60 lb. rails by 75 lb. carried out for a matter of 1 m. 6 ch. on the Yanagase-Hikida section.

Laying of additional sleepers carried out to a length of 38 miles on the Yanagase-Sebae, the Hosorogi-Daishoji and the Tsubata-Isurugi sections.

(3) WESTERN DIVISIONAL SUPERINTENDENT OFFICE.

Tokaido Line. Strengthening of bridges with better girders completed about 9 parts for the Katsuragawa bridge, about 6 parts for the Ibarakigawa bridge, about 3 parts for the bridges over the river Tama and 6 othe rivers on the Nishinari section.

Re-railing carried out to an aggregate length on the Baba-Inari and the Kanzaki-Sumiyoshi sections.

Laying of additional sleepers carried out for a matter of 68 m. 6 ch. on the Maibara-Baba section.

Construction of Maruyama station completed about 9 parts.

Enlargement of Baba station completed and that of Sumiyoshi station completed about 4 parts.

Enlargement of Kyoto Station.—Remaining portion of purchase of land was finished to the extent of 9.5 parts, but no start was made with the work as yet. As a number of years must elapse before the expansion work be brought to completion, it was decided that the Umekoji station should be adopted for traffic business ad interim, and that end the remodelling of the latter station was undertaken and completed by the end of the year.

San-in Line. Strengthening with better girders bridge No. 4 and 11 other culverts and bridges, continued from the preceding year, and bridge No. 83 on the Kameoka-Yagi section and one other bridge, started this year, completed.

No. 2 interlocking apparatus installed in Toyoda and Yamada stations.

Laying of additional sleepers carried out to a stretch of 21 m. 53 ch. on the Kyoto-Sonobe section.

Fukuchiyama & Bantan Lines. Strengthening of bridges with better girders carried out for Kawakubo and 67 other bridges, continued from the preceding year, and for Kamawaritani and 15 other bridges on the Ikeda-Shimotari section and bridges over the river Tobori on the Nazato-Koro section, started this year, completed. Purchase of land required by the enlargement of Sasayama station, Fukuchiyama line, and the work taken in hand.

Kansai Line. *Duplication work between Tsu and Yamada, Sangu Line.*—Remaining portion of the work connected with the girder laying of the Kongogawa bridge and equipment of signal apparatus and platelaying completed, and the construction of additional bridge over the river Shinto and installation of signals and platelaying incidental to the duplication between Matsuzawa-Tokuwa completed. The double lne service was opened for traffic on the Yamada-Sujimukai and the Matsuzawa-Tokuwa section.

Duplication work between Osaka and Tamatsukuri.—Purchase of land completed about 9 parts. Strengthening with better girders of the Otsu and other bridges on the Osaka-Tokuwa section completed. The grading work on the first line on the Matsuzawa-Tokuwa section completed and resleepering for a matter of 39 m. 40 ch. between Kameyama-Kamo and for 31 m. 76 ch. between Kameyama-Yamada completed about 9.5 parts. Enlargement of Yokkaichi station completed about 6 parts, enlargement of Yameyam astation and construction of Aotani signal station completed.

Sanuki Line. Strengthening of bridges with better bridges completed on the Higashi Yokochi and other bridges on the Sakate-Kamogawa section completed about 5 parts. New passenger pier was erected in the Takamatsu station yard.

Construction of landing pier on the Onohama goods branch completed about 5 parts.

The traverser in the Kobe station yard completed.

San-yo Line. *Duplication work between Kamigori and Yoshinaga.*—Duplication between Mitsuishi and Yoshinaga completed.

Strengthening of bridges with iron girders.—Remaining portion of the work on the Yanagawa bridge an 128 other bridges completed and new work on the Furutsugawa bridge on the Koi-Hatsukaichi section and 69 other bridges as well as Ujina No. 1 and 3 others on the Ujina line completed.

Re-railing of the line completed about 9.5 parts for the two tunnels on the Hatsukaichi-Kuba section, about 6 m. 32 ch. on the Okayama station premises and the Hachihonmmatsu-Seno section, about 13 ch for the Tachino tunnel on the Iwata-Shimada section, 7 ch. for a tunnel on the Shimada-Kudamatsu, about 4 miles on the Gochaku-Himeji section, about 3 miles on the Kamigori-Mitsuishi section, about 5 miles 22 ch. on the Kochi-Shiraichi section, about 45 ch. for tunnels on the Chofu-Hatabu section.

Laying of additional sleepers carried out for a matter of 4 m. 56 ch. on the Tokuyama-Fukukawa section.

Takatori Works.—Construction of office room completed; enlargement of generating station completed about 6 parts; feeder arrangements completed about 6.5 parts; construction of store house completed about 5 parts.

Gas producer station constructed at Himeji.

Enlargement of Hyogo station completed about 6.5 parts.

Construction of Eiga signal station completed.

Construction of Nijigahama station completed about 7 parts.

Remaining portion of the enlargement of Okayama station completed; the traveser transferred.

Deviation of tracks in the Shimonoseki station yard completed.

Works demanded by the introduction of the car ferry service across the Straits completed.

(4) KYUSHU DIVISIONAL SUPERINTENDENT OFFICE.

Kagoshima Line. Duplication work between Orio and Ongagawa, continued from the preceding year, completed about 6 parts.

The Shimonoseki-Moji 'Link' and connected work completed.

No. 1 interlocking apparatus installed in Hakata and Yoshizuka stations.

Enlargement of Kokura Works taken in hand.

Purchase of land required by the enlargement of Moji and Kami-Kumamoto stations completed.

Construction of Manda station completed about 5 parts.

Simple interlocking apparatus installed in Narakuchi and 2 other stations.

Re-railing on the Tosu-Hainuzuka and the Watase-Omuda section completed.

Strengthening with iron girders bridge B. No. 9 and other bridges completed.

Coal stage provided on the Moji-Ozato section.

Additional tracks laid or the alteration of the existing ones carried out on the same section.

Nagasaki Line. Laying of the Miyachidake branch completed.

Re-railing carried out on the Tosu-Nakahara and 5 other sections.

Simple interlocking apparatus installed for Kubota and 4 other stations.

Hoshu Line. Enlargement of Ida station, continued from the preceding year, completed.

Chikuho Line. Purchase of land for the construction of the Shippu branch practically completed.

The second of the enlargement work of Nogata station completed about 6 parts.

Duplication work between Nogata and Ida.—Installation of No. 1 interlocking apparatus, regirdering of Bridge No. 4 on the Nakama-Chikuzen Ueki section and one other bridge completed.

(5) HOKKAIDO DIVISIONAL SUPERINTENDENT OFFICE.

Duplication Work between Temiya and Iwamizawa continued from 1907.—Remaining portion of the Asazato-Zenibako section completed and open for traffic. Temiya Reclamation and Enlargement work—Remaining portion of the elevated coaling pier, the earthwork on the branch to the pier and the construction of landing pier completed. Construction of truckscale on the elevated pier taken in hand. The platelaying in the Temiya station yard completed about 3.5 parts. Rebuilding of the Ishikarigawa bridge, the boring of the Kamuikotan tunnel incidental to the duplication work between Temiya and Iwamizawa completed 3 parts.

Construction of Otoshibe station finished.

Purchase of additional land made for Nembetsu station.

Widening of the slope of the cutting near 151 m. from Hakodate, improvement on the track on the section between 23 m. 28 ch. 30 lin. and 59 ch. 22 lin. from Sorachiputo completed about 2.6 parts; improvement work on the roadbed carried out for a matter of 5 m. 38 ch.

Purchase of additional land for Nanae and Hongo stations and construction of Goryokaku station completed.

Muroran Line. *Muroran Reclamation and Enlargement Work.*—Eastern portion of the reclamation work having been completed, the first section of the reclamation of the western portion was taken in hand and completed about 4 parts, while on the ground reclaimed on the eastern part was built main and other buildings. Laying of additional tracks, alteration of existing ones, construction of elevated coaling piers, laying of aqueducts for fire-main or feed pipes still in progress. The water reservoir and feed pipes, temporary quarters and 3 accessory buildings completed.

Improvement work on the tracks carried out for a matter of about 5 miles on the Abira-Oiwake and the Kuriyama-Kiyomappu sections.

Improvement on the roadbed taken just in hand.

Vehicle repair shop constructed in the Muroran Works.

Reconstruction of the Horowakegawa bridge incidental to the duplication work and track improvement still in progress.

Duplication between Oiwake-Yubari Section.—The section between Shimizusawa-Yubari taken in hand and completed about 6 parts.

Construction of turntables in the Oiwake station yard completed

Kushiro Line. Construction of Tofutsu station completed.

Shore protection along the river Tokatsu at 57 m. 60 ch. from Kushiro completed.

Deviation of 22 chains of tracks near 44 m. from Kushiro completed about 3 parts.

Strengthening of bridges with iron girders undertaken at 16 places.

With a view to forming snow-guard plantation alongside the lines, formation of nurseries, tree-planting, grass-mowing, etc., as well as the location of fire-prevention clearings were carried out.

(6) STREET LINE CONSTRUCTION OFFICE.

Shinsenza-Eirakucho Section.—Remaining portion of ballasting on the various arches completed.

Central Station.—Frame work of the main building completed in September, the walling and flooring started in March, 1911 and the roofing and interior work of the first foor finished in January, 1912, about 6 parts of the whole work having been carried out in the year. Work on the approaches to the station and the subway and other works incident to the construction of the main building were suspended, while part of the fill-in work was proceeded with.

Purchase of land involved by the changed plan for the building of Karasumori station, was taken in hand and finished in the year.

Ochanomizu-Manseibashi Section.—Construction of the main building of the Manseibashi station having been practically completed with the exception of the retaining walls around the premises and part of the subway, the track was laid for electric tram service, while power cables, platform with their sheds, and other necessary facilities were completed, so that the station was opened for traffic on April 1st, 1912.

Central Station-Ueno Section.—Purchase of land was finished in greater parts on Kandagawa-Manseibashi section.

CHAPTER XV.

CONSTRUCTION WORKS.

(1) CENTRAL LINE. (HIRADE-SUWARA).

The Miyakoshi—Kiso Fukushima section was practically completed by the end of the previous year, and with the completion of the remaining portion of the permanent way and the engine house on the Kiso Fukushima station premises, was opened for traffic on May 1st. With this the through service was opened on the whole of the Central Line (Hachioji-Nagoya).

(2) TOBA LINE (YAMADA-TOBA).

The permanent way, stations and other buildings as well as the remaining portion of the work on the Shioaigawa bridge and the Futami tunnel was practically completed by the end of the year, when on June 19th, 1911 the main building of Futami station, goods shed, waiting room and other buildings were blown down by a storm. Repair and restoration work was carried out here as also on the Toba station which equally suffered from the storm. The section was opened for traffic on July 21st.

(3) SAN-IN LINE (INCLUSIVE OF THE TAISHA SPUR LINE).

Fukuchiyama-Wadayama Section. — The earth works, bridges, culverts and other works were completed in early October, 1911 on the subsection between 4 m. 70 ch. and 15 m. 16 ch. from Fukuchiyama, while the Yakuno tunnel which had been bored through in September in 1910 was also brought to completion. Then the construction of the main buildings of Kamikawaguchi and three other stations, started this year, were completed toward the end of August, 1911, as also the round house at Wadayama station. The section was opened for traffic on December 25th, 1911.

The installation of interlocking apparatus and other minor items of the remainder work were subsequently carried out, while the overbridge for Wadayama station was completed in November, 1911.

Wadayama-Kasumi section. — The embankment work along the Momoshima pond near 24 m. 60 ch. for which the contract was relieved in the previous year, was energetically proceeded with under the direct undertaking of the Government Railways, but the earth still continued to subside until after a year or so. The filling was indeed completed up to the formation level by April, 1911, but the basis was far from being solidified. To make matters worse, the earth work was seriously hampered by the heavy downpour in May. From July onward the subsidence became less and less in extent and the work was completed in early October.

The earthwork and other works on the subsection between 31 m. 60 ch. and 38 m. 18 ch., continued from

the preceding year, was originally arranged for completion by August, 1911, but the subsidence which took place at places on the embankments rendered it impossible to bring about the consolidation of the formation within the prescribed period. In consequence the contract was relieved and replaced by the Railway undertaking, the work being finished in early October.

The main buildings of Sazu and Kasumi stations as well as other works, started this year, were completed in early October, 1911, and the Kinosaki-Kasumi section was opened for traffic on 25th of the same month. The remainder work subsequently undertaken comprised the diversion of the ditches near 35 m. 11 ch., retaining wall and official residences on the precincts of Takeno and Kasumi stations. The bridge for Toyooka station on the Wada-Yamazaki section, started at the end of the preceding year, was completed in early July, 1911.

Kasumi-Uradomi section.—The purchase of land was finished in greater parts. The cuttings of the main track between 99 m. 6 ch. 17.7 lin. and 99 m. 18 ch. 20 lin. from Sakai, continued from the preceding year, were in danger of slipping down the slope. The modification of the slope was carried out, but this could not prevent the sides from heaving out toward the track, so that the clearance work had to be undertaken. Yoroi station, whose western end is located on a gradient of one in 80, had its centre shifted, so that the protection section of the signal in the station might be placed on a level. Part of the cutting in the same station yard being in danger of crumbling down on account of the weak strata, was given a more easy slope, and where the danger is the greatest, steps were cut out at an altitude of 48 feet above the formation level, while a slight deviation was made from the original designs as regards the various other works. The work was completed on November, 1911. Earth works and bridging between 95 m. 15 ch. and 95 m. 33 ch., continued from the precding year, were finished in June, 1911.

Earthwork and various other works between 91 m. 45 ch. and 95 m. 15 ch., continued from the preceding year, were finished in December, 1911.

The main buildings of Kutani and Yoroi stations and connected works were started in July, 1911 and finished in February, 1912.

Earth and connected works on the subsection between 86 m. 44 ch. 81.5 lin. and 91 m. 39 ch. 20.5 lin. continued from the preceding year, were finished in September, 1911.

Earthwork and connected works on the subsection between 83 m. 22 ch. 81.5 lin. and 86 m. 44 ch. 81.5 lin., continued from the preceding year, were well forward, while part of the retaining wall was discontinued where the substrata were laid bare on the river bed near 83 m. 77 ch. and neighbourhood. The work was brought to completion in May, 1911.

The Igumi station main building and other works, continued from the preceding year, were completed in August, 1911.

The position of the up home signal which would have been situated too near the entrance of the tunnel to be visible from the inside thereof, if allocated as required by the official profiles, was changed into one where it could be seen more distinctly. The up distant signal, too, which was to have been set up at the western entrance of the tunnel, was originally arranged to be operated by electricity, the distance being too great to be worked by wires. Pending the preparations, however, a watchman was set to signal the trains by moving the arms at the signal of electric bells.

Earth and other works on the subsection between 80 m. 10 ch. and 83 m. 22 ch. 81.3 lin., continued from the preceding year, were completed in August, 1911, with the exception of that section for which the contract was relieved on account of the subsidence of the earth due to the weak strata. As to the latter section the filling-in of earth was carried out to the amount previously arranged, but the ground kept on settling all the same, so that the filling of additional earth of more than 1.500 *tsubo* (16,500 *tsubo* in all) were required before it was brought to completion in November, 1911.

The erection of a watchman's box on the level crossing and other works on the same section were taken in hand in August, 1911, and the work on the subsection between 81 m. 48 ch. and 89 m. 15 ch. completed in November, 1911, the remainder being finished in February, 1912.

The Iwami-Hamasaka section was opened for traffic on November 10th, 1911 and the Kamasaka-Kasumi section on March 1st, 1912. With this the connection of the San-in Line with the Trunk Lines was accomplished after an elapse of 13 years since its inception.

Uradomi-Sakai section.—No work worth mentioning was undertaken except the diversion of the river Hitsu and connected works.

Arashima-Imaichi section.—The construction of turntable and round house at Imaichi station was taken in hand, the former being finished in December, 1911, and the latter in January, 1912.

Taisha Line.—This line starts from 38 m. 27 ch. 77.7 lin. from Yonago (Izumo-Imaichi station yard) and terminates at Taisha station in the village of Araki, a distance of 4 m. 65 ch. 80 lin. The line heads due west at first and then turns right and proceeds in the direction of north-west. It crosses the rivers Akagawa, Shin-Naito and Takase. The territory traversed by the line is generally level. A simple intermediate station is planned at a spot where Araki borders on Takamatsu. The ruling gradient is one in 330 with the sharpest curve of 18 chain radius.

Earthwork and other works were started in December, 1911 and completed about 5 parts. The work is energetically prceeded with in the hope of having the section opened for traffic in early 1912.

The main building of Taisha station and other works, which have been taken in hand, has made no progress worth mentioning.

(4) MAIZURU LINE (AYABE-SONOBE SECTION).

No work was carried out except the installation of No. 1 interlocking apparatus in Ayabe station.

(5) HAMADA LINE (IMAICHI-HANEISHI SECTION).

This line starts from 39 m. 20 ch. 8 lin. from Yonago, San-in line, and terminates at 56 m. 52 ch. 1.6 lin. from the same starting point, a distance of 17 m. 31 ch. 93.6 line. A little way from the starting point the line turns left and wends its way up towards Kochi, beyond which it crosses the river Kambe, and through the village of Fuchi and across the highroad, it turns right and reaches Tomoinomiya where a station of the same name is to be located. Then the line runs parallel to the highroad as far as Anya where it crosses the river Toma and thenceforward it keeps on in its westerly direction. After crossing the river Shinkawa it turns left, and skirting the southern shore of Lake Jinzai it reaches the village of Konan where a station is planned. Further on it again intersects the highway, turns left and ascends as far as Futabe and after crossing the highway on a road bridge, it turns left and makes a bend to the right. From Kumura it keeps again parallel to the highroad as far as the river Gotanda which it crosses before reaching Taki, whence making a bend to the left it runs on the left of the highway, and across the river Matsushita, turns right and reaches Taki. In its descent the line intersects the highroad several times and crosses the river Oda and after passing through a tunnel at Odayama, it turns left and reaches Edo whence it heads west, turns left, and in its ascent intersects the highway once more before Ono is reached. Starting therefrom it leads parallel to the highway and circuits down parallel to the highway which it intersects again at Yanagidani on a road-bridge. After passing through another tunnel and crossing the river Akatani, it proceeds west along the foot of Mt. Tagi and crosses the river Tagi. Then it turns right and makes a gradual ascent along the borders between Izumo and Iwami. Beyond the frontier it turns left, and in its descent crosses the river Karatani. It makes another turn to the left before it reaches, by way of Sanya, Owashi where it crosses a number of mountain torrents and gradually descends through the Ono and the Samizu tunnels before it emerges upon the northern extremity of the village of Hanehigashi. Crossing the river Hane and two highroads on road bridges it turns left and enters the village of Hanenishi and passing the southern borders of the village, it turns left and reaches the eastern extremity of Kuto. Then the line leads parallel to the highway as far as the village Sazuka where Hanenishi station is planned. Beyond the station it heads in a bee-line until it reaches the western extremity of the village of Nishikawa at 56 m. 52 ch. 1.6 lin. from the starting point of Yonago.

As far as Oda the natural lie of the country traversed by the line is generally level, but further on the track has to skirt the rugged shore of the Japan Sea through broken chains of narrow and steep valleys, which entails a large amount of tunneling and embanking work, forming, indeed, one of the most difficult sections on the whole line.

The ruling gradient is one in 100 with the sharpest curve of 15 chain radius.

Earthwork and other connected works on the section between 39 m. 20 ch. 8 lin. and 44 m. 40 ch. which were started in February, 1912, has made a progress of only 2 parts.

(6) YAMAGUCHI LINE (KOGORI-YAMAGUCHI).

This line starts from Kogori station at 285 m. 60 ch. from Kobe and terminates at 8 m. 20 ch. from Kogori, a distance of 8 m. 20 ch. After crossing the eastern skirt of the town of Kogori, it heads northward as far as Yanaida where it crosses the river Shijuhasse. Passing through the eastern suburbs of the town of Shimmachi, it intersects the highroad to Yamaguchi and the Dai-Nippon Tramway Co.'s line laid thereon. After running thenceforward parallel to the tramway line as far as Maruyama, the line emerges upon the cultivated field which it traverses and enters Otoshi where it turns left. The line makes another turn to the right before it reaches Shoi. Further on it turns right and crosses the river Yoshiki and intersects the highroad and tramway once more at Yuda. Emerging at the southern extremity of Yabara it turns left and runs across the cultivated land through Yuda, Sanai, Hazaka, and other villages. It interests the highway a third time before it reaches the south-eastern end of the town of Yamaguchi where it terminates. The country traversed by the line is generally level. The ruling gradient is one in 80 with the sharpest curve of 20 chain radius.

Surveying on the section was started in May, 1911 and completed in September. Then a start was made with the purchase of land, but no particular progress in the work was made, as it was started as late as March, 1912.

The sectionmen's quarters of the defunct Sanyo Railway Co. at Kogori were loaned and re-modelled into a temporary office, while temporary accommodation for supervising officials was provided at Shimmachi and Yamaguchi, and storerooms at Kogori and Otoshi.

(7) TOYAMA LINE.

Toyama-Ichiburi Section.—Remainder work on the subsection between Toyama and Ichiburi comprised the erection of a tarpaulin drying room in the Toyama station yard, the laying of additional sidings and installation of points and deadends or re-location thereof in Mikkaichi, Ikuji, Nyuzen, and Tomari stations.

The lengthening of the western heading of the Miyazaki tunnel on the Tomari-Ichiburi section, started toward the end of the preceding year, was completed at the beginning of this year, while the subsection was provided with retaining walls, ditch walls and blind drains in the cutting. The platelaying and ballasting was completely carried out on the section.

Ichiburi-No Section.—The work between 39 m. 60 ch. and 56 m. from Toyama, which was divided into six subsections, was taken up one by one since 1907-8, the last subsection being completed in 1910-11.

The work between 56 m. and 56 m 59 ch. 54 lin., continued from the preceding year, was completed 8.7 parts in earthwork, 9.4 parts in bridging, 9.4 parts in the building of culverts, and 6.3 parts in that of conduits.

4 watchman's boxes were erecte don the Ichiburi-Oyashirazu section. Fencing along the track was commenced toward the end of the year and completed about 7 parts. The construction of main buildings and accessory structures were commenced at Oyashirazu, Omi, No and Tsutsuishi stations within the year and toward the end of the same year official residences and accessory buildings at Itoigawa station, the former recording a progress of about 4.5 parts and the latter of 2 parts. The construction of the Itoigawa engine house was taken in hand within the year and completed about 3 2 parts, while a start was also made with the construction of station buildings, turntable, and coal stage as well as the waterworks, but the time that had elapsed admitted of no marked progress.

Concreting was carried out inside the Takaotaira, Wakamizu and Katsuyama tunnels, where water gashed out to a considerable extent, while the retaining wall was pitched in front of Oyashirazu station and the fascine work was provided for the foundation of the Takehanazawa bridge.

Platelaying and ballasting were carried out 8.6 parts on the Ichiburi-Omi section and about 5 parts on the Omi-No section.

No-Naoetsu Section.—The earth and other works on the Naoetsu-Natate section were completed and the section was opened for traffic on July 1st, 1911. The remainder work undertaken subsequent thereto comprised the fencing at Gotsu station and at 18 other places, the deviation of the road at 8 m. from Naoetsu, the construction of retaining and ditch walls near Tanihama station, and the laying of vertical drains and earthenware pipes above the Nagahama tunnel. Watchman's box at the entrance of the Gotsu tunnel was just taken in hand.

The earth and other works from 10 m. 4 ch. to 15 m. 50 ch. from Naoetsu on the Natate-No section, which were divided into two subsections, were continued from the preceding year and completed by the end of the year under review.

The work between 15 m. 50 ch. and 17 m. 55 ch. was continued from the preceding year and while the tunnelling and bridging works were brought to a finish, the earth work remained incomplete to the extent of 1.6 parts, this being due to the presence of clayey strata saturated with water which seriously hampered the cutting work.

Stationmen's accommodation was provided for Naoetsu, No and Kajiyashiki stations while the blind drain was laid on the slope of the cutting at 12 m. 57 ch. from Naoetsu. Watchman's boxes were provided at four level crossings.

Platelaying and ballasting were carried out about 7 parts on the Natate-No section.

(8) GAN-ETSU LINE.

Kitakata-Tokuzawa Section.—The work on the subsection between 7 m. 15 ch. and 17 m. 27 ch. from Kitakata, continued from the preceding year, was completed as regards the earthwork, building of bridges and also culverts, laying of conduits and tunneling, etc., with the exception of the embankments and cutting near 10 m. 60 ch. which had been transferred to the Railway undertaking. The laying of iron girders, platelaying and ballasting being carried out, the operation of work trains was opened on the section as far as 11 m. 40 ch.

The work on the subsection between 17 m. 27 ch. and 22 m. 30 ch., continued from the preceding year, was practically completed with the exception of a part of the construction of wingwalls for bridges and culverts as well as earthwork.

Tokuzawa-Omaki Seciton.—The work on the subsection between 22 m 30 ch. and 30 m. 30 ch. from Kitakata, taken in hand in April, 1911 was completed about 4 parts for the earthwork, about 4 parts for the bridging, about 7 parts for culverts, about 8 parts for underdrains and about 5 parts for tunnelling.

The work on the subsection between 30 m. 30 ch. and 32 m. 16 ch. 50 lin. from Kitakata and on the subsection between 24 m. 75 ch. and 26 m. 64 ch. lin from Niitsu, continued from the preceding year, was completed about 8 parts as regards earthwork, about 8 parts for bridging, about 9 parts for culverts, about 5 parts for underdrains, and about 4 parts for tunnelling.

The boring of the Hirase tunnel, 6.581 feet in length and indeed the longest on the Gan-Etsu line, proceeded up to a length of 773 feet from the heading, when there happened a gush all of sudden and hampered the work seriously. Efforts were made for pumping out the water, while at the same time boring was suspended and bricklaying energetically attended to. Notwithstanding these hindrances the work made a fair progress, the boring of both headings being carried out for a matter of 3,559 feet, the lining of side walls for 2,468 feet, and the pilling of arches for 2,432 feet.

The earth and other works on the subsection between 23 m. 34 ch. and 24 m. 75 ch. from Niitsu, continued from the preceding year, were completed in February, 1912.

Purchase of land for the section was practically finished.

Omaki-Satori Section —The work on the subsection between 12 m. 29 ch. and 14 m. 36 ch. from Niitsu was completed within the preceding year, and the laying of iron girders, platelaying and ballasting are now in progress and nearing completion.

The work on the subsection between 14 m. 36 ch. and 17 m., continued from the preceding year, was completed about 6 parts for the earthwork, about 8 parts for bridging, about 9 parts for culverts, about 8 parts for underdrains and about 8 parts for tunnelling.

The work on the subsection between 17 m. and 22 m. 34 ch. was completed by the end of the year.

Purchase of land for the section was finished.

Satori-Niitsu Section.—Construction of an overbridge for Niitsu station and the laying of sidings were taken in hand and are now in progress. Owing to continuous rainfall of phenomenal magnitude, from the middle of July to early August, 1911, the river Akanogawa, among the rest, rose to the highest level since 1907, especially along its upper course, while along the lower course the record registered was second only to that of 1897. At Choshi-no-kuchi, a distance of 1.5 miles on the borders between Niigata and Fukushima prefectures, the water rose 50 feet above the mean water mark. It is to be regretted that apart from the heavy loss suffered by the contractors, the progress of the constructive work was in consequence retarded to a serious extent.

(9) SHIBATA LINE (NIIGATA-SHIBATA).

Work on the subsection between the starting point and 16 m. 50 ch., continued from the preceding year, was completed as regards earth work, bridging, and laying of conduits. Platelaying and ballasting was subsequently attended to, while the spanning of the Noshirogawa bridge was completed. The work train was then put in service as far as 2 miles along the left bank of the river Akano. A substantial start was made with the construction of the Akanogawa bridge, the longest on the whole line, which measures 4,077 feet in length, consisting of 4 spans of 200 feet, 10 spans of 70 feet and 56 spans of 40 feet.

The equipment of Suihara and Tennoshinden stations on the section was practically completed.

The purchase of land for the section was finished about 9 parts.

(10) TAIRA LINE.

Koriyama-Kanameda Section.—The line starts from Koriyama (139 m. 27 ch. 44.7 lin from Ueno) and terminates at the northern extremity of the village of Kumakami, a distance of 10 m. 16 ch. 80 lin. At first the line heads north parallel to the main line as far as the village of Fukuyama, at the northern end of which it turns right and proceeds in a bee-line on the borders between Iwaki and Iwashiro provinces until it crosses the river Abukuma by a bridge 1,221 feet long. Emerging upon Koizumi, it turns right three times before it reaches Iwae where it passes through the Moki tunnel and enters Nakatsuma. Further on it wends its tortuous way along the left bank of the river Koizumi and passing through the Takanosu tunnel, reaches Okuma. After crossing the river Koizumi three times it turns right and runs through the cultivated land to the town of Miharu where a station is planned. Then it enters the narrow basin of the river Yashima and runs along the mountain skirts, at the end of which the Omatsuri tunnel is bored. Beyond the village of Kanameda it passes through the Kamamimi tunnel and after a turn to the right, proceeds eastward as far as the village of Kamamimi whence it reaches the terminus in a wide curve.

The ruling gradient is one in 80 on the Koriyama-Miharu section and one in 50 on the section east of Miharu, while the sharpest curve is of 15 chain radius.

The surveying of the section was taken in hand in April, 1911 and completed in July. The purchase of land was then proceeded with, but the earth and other construction works remain to be started, though the plan for the work is now completed.

Temporary storehouses were erected at Koriyama, Fukuyama, Yamada and Miharu.

Kanameda-Natsui Section.—This line forms an extention of the Koriyama-Kanameda section, and starts from the village of Kanameda, a distance of 10 m. 50 ch. from Koriyama. After turning to the right twice, it runs in a wide curve and passes through the Sasayama tunnel. The line then winds among the mountain ranges and enters Monju where it passes through a tunnel of the same name before it reaches Katasone. Further on it comes to where Funehiki station is planned on a flat bordering on the left bank of the river Otakine. Proceeding, it crosses the high road and the river Otakine, and turns first to the right and then to the left before Ogoe is reached.

Taira-Kami Ogawa Section.—This line starts from Taira station on the Joban line (132 m. 38 ch. 62 lin. from Ueno), heads westward parallel to the Joban line, passes through the Inariyama tunnel and enters Uchigo where it diverges from the main line. Turning right, it passes through the hilly district of Odate and emerges upon the cultivated fields. Then it heads north, crosses the river Koma, turns left and enters Akai whence it runs along the river Natsui and parallel to the high way until Akai is reached where a station is planned. Beyond the station it turns right and intersects the Akai highway. After making a zigzag among the hills it heads due north and crosses the river Ai. Soon it reaches the bank of Ogawa where it turns left at a point close to the river Natsui and reaches Takahagi where a station is planned.. After crossing the river, it enters Ogawa, intersects the highway, parallel to which it runs for some distance after passing Uenouchi. Thne the river Karo is crossed, and the Yaho and the Okubo tunnels are passed through before the line enters a most difficult section laid on the precipices along the river Natsui which it passes by means of viaducts designed upon them. Passing through the Kamiogawa tunnel, it turns left, intersects the highway and reaches Jigokudani, Ogawa village, where the line terminates.

The distance of the line measures 9 m. 40 ch. 33 lin., the ruling gradient being one in 80 and the sharpest curve of 15 chain radius.

The survey of the section was started in July, 1911 and finished in November, but no work was taken in hand, preliminary arrangements being just concluded for the purchase of land required by the work.

(11) KOGOTA-SHINJO LINE.

Kogota-Iwadeyama Section.—The subsection between Kogota and Furukawa starts from the village of Fudodo where Kogota station was transferred, a distance of 243 m. 60 ch. 50 lin. from Ueno, North Eastern main line. It runs north parallel to the main line as far as Kitaura which it reaches across a stream. Then it turns left and, by way of the town of Kogota, re-enters Kitaura. Intersecting the Furukawa Horse Tramway Co.'s line, it emerges upon the cultivated rice-fields which it traverses until it reaches, through Arao, the town of Furukawa where a station is planned.

The distance is 5 m. 72 ch. 51 lin., the ruling gradient being one in 100 and the sharpest curve of 20 chain radius.

No noteworthy progress was made with the earth and other works on the section between the starting point and 0 m. 40 ch. which together with the removal of Kogota station and connected works, was taken in hand toward the end of the year. The work on the section between 0 m. 40 ch. and 7 m. from Kogota was taken in hand in August, 1911, and completed only 4 parts. The reason why the work was tardy in progress was ascribed to the heavy rainfall which seriously hampered the earth work, especially as the earth required for the work was to be supplied from the fields in the vicinity.

The work on the subsection between 7 m. and 14 m. was taken in hand in May, 1911 and well forward, about 8 parts of the work being completed by the end of the year.

The construction of temporary official residences on the premises of Furukawa and two other stations was taken in hand in June, 1911 and completed in October.

The purchase of land was finished to the extent of some 6 parts.

Iwadeyama-Kajiyazawa Section.—This section starts from the extremity of Iwadeyama station, and turning left, passes through the northern outskirts of the town of Iwadeyama. After intersecting the North Uzen Highway, it proceeds west along the river Uchi, and after a turn to the right crosses the river Arao. At Ichikuri it turns left and intersects the above mentioned highway and then heads west through the rice fields as far as Ikezuki where a station is planned. Further on, the line passes through the northern extremity of the village and enters among the hills. After intersecting the highway a third time it descends again upon the cultivated land and turning right enters the village of Yuizumi. Beyond the village it runs along the foot of mountain ranges, turns left, and reaches Myosada where Kajiyazawa station is planned.

The distance measures 8 m. 74 ch., and the ruling gradient is one in 88 and the sharpest curve of 15 chain radius .

The work on the section was taken in hand toward the end of the year under review and no progress worth mentioning has been made.

Purchase of land was completed about 2 parts by the end of the year.

Shinjo-Kiyokawa Section.—The reconstruction of Shinjo station and the earth and other works together with the relaying of yard tracks were taken in hand In September, 1911 and completed about 5.4 parts by the end of the year.

The earth and other works on the subsection between 0 m. 50 ch. from the starting point of Shinjo and 7 m. 10 ch. were continued from the preceding year. The headings of the Semba and the Iwashimizu tunnels were bored through, and the bricklaying is now in progress. It is true that the work made rather tardy progress owing to the difficulty experienced in obtaining a supply of materials during the increment weather, but all the same it was proceeded more than 8 parts by the end of the year.

The earth and other works on the subsection 7 m. 10 ch. and 8 m. 65 ch. were taken in hand in November, 1911, but the insufficiency of time at disposal and the setting in of the cold season did not allow the progress of the work as previously arranged.

The earth and other works on the subsection between 8 m. 65 ch. and .3 m. 60 ch. were taken in hand in July, 1911. The laying of the section involved considerable engineering difficulties as the building of the Mogamigawa bridge No. 1 (4 spans of 200 feet and 9 spans of 60 feet) and the boring of the Itajiki tunnel (2,191 feet in length). The bridge work was energetically proceeded with, being continued through all the cold season, but the progress of the work was retarded to no small extent owing to the sudden downpour in February, 1912 which melted the snow drift along the banks of the river and consequently swollen the current. The tunnel was bored through the greater part of its headings, and it will be opened ere long. Altogether the progress of the work on the section was about 1.8 parts.

The earth and other works on the subsection between 13 m. 60 ch. and 19 m. 400 ch. were taken in hand in July, 1911. The laying of this subsection is attended with considerable difficulties. The line passes through the very narrow and winding valley flooded by the rapids of the river Mogami, and the mountains surrounding it are quite close to the riger, forming steep and overhanging crags or projecting lands, and in most places there is only a narrow space between the mountain and the river. The work has in consequence involved the boring of no less than 9 tunnels with an aggregate length of 9,843 feet, of which the headings were driven through with the exception of two. The widening work is now in progress. The difficulty of laying this section is further aggravated by the severe climatic conditions which render it utterly impossible to attend to outdoor work during the greater part of winter when the snow lies deep on the ground. The utmost efforts were, however, put forth in proceeding with the construction, so that about 2 parts of the work was completed by the end of the year.

The erection of official residences on the Masugata station premises was taken in hand in July, 1911 and was completed, but no particular progress was made with the erection of similar buildings at Kiyokawa and Furukuchi stations which were started in November, 1911.

Kiyokawa-Sakata Section.—This line starts at the western extremity of the village of Kiyokawa, Yamagata prefecture, and terminates at the north-eastern skirts of the town of Sakata, a distance of 14 m. 44 ch. The line wends its way between the highway and the river Mogami and crossing a canal heads west as far as the village of Karigawa where a station is planned. Beyond the station it proceeds in a straight line and enters the borders betweeen Karigawa and Yamato where it turns rights and runs along the highway through Furuseki and Akabuchi until the village of Joman is reached. Thenceforward it traverses the cultivated fields, and turning right reaches the village of Amarume where a station is planned. Further on it turns right and intersecting the highway emerges upon the low land along the river Mogami. After running for a distance, it crosses the river Mogami on a long bridge of six 200-feet and twenty-two 60-feet spans. Beyond the river is situated South Hirata where the line turns left and intersects the Asuka highway and reaches the prescribed site of Hirata station. After turning left a second time, it passes through Middle Hirata and West Hirata, crosses the river Niida and reaches, by way of West Arase, the town of Sakata where a terminus is planned.

The ruling gradient is one in 100 and the sharpest curve of 30 chain radius.

The earth and other works on the subsection between 19 m. 40. ch and 27 m. were taken in hand in January, and those on the subsection between 27 m. and 24 m. 44 ch. in March, 1912.

The purchase of land for the section was finished about 2.5 parts by the end of the year under review.

(12) BOSO LINE.

Naruto-Togane Section.—The earthwork and bridging on the section, continued from the preceding year, was completed in July, 1911. The platelaying, ballasting and the laying of bridge girders were subsequently taken in hand, upon the completion of which the section was opened for traffic on November 1st, 1911.

Soga-Kisarazu Section.—The work on the subsection between Soga-Anegasaki, continued from the preceding year, was seriously hampered by the repeated occurrences of natural calamities, but all the same the constructive work proceeded as previously arranged. The bridge over the river Yoro was completed in January, 1912 and the other bridges in November, 1911 and with the completion of platelaying, ballasting and the laying of bridge girders, the section was opened for traffic on March 28th, 1912.

As regards the subsection between Anegasaki and Kisarazu, the contract was concluded at the end of preceding year, a start being subsequently made with the work. It is satisfying to note that about 8.4 parts of the work were completed, and that notwithstanding the visit of tidal wave and other calamities which dealt heavy damage upon the section.

Ohara-Katsuura Section.—The section starts from the terminus of Ohara, Chiba prefecture, 35 m. 69 ch. from Chiba, and terminates at Kushihama, a distance of 8 m. 77 ch. 33 lin. At its outset the line intersects the Kohama highway and after a turn to the right intersects the Boso highway and crosses the river Izumida. Then it traverses the cultivated fields and enters Ozawa at the southern extremity of which Namihana station is planned. Beyond the station the line wends it way through the cultivated land and after intersecting the Boso highway a second time, reaches the village of Onjuku, where it turns right and passing through the Kuboyama tunnel, it turns right once more and intersects the Boso highway a third time on a road bridge. Further on it emerges upon the rice-fields of Kubo which it passes through and after a turn to the right crosses the river Shinkawa on the borders between Kubo and Suka. At the northern end of the latter village is planned Onjuku station. Then turning right it passes through a tunnel and turns right, passes two more tunnels and after making several further turns, it crosses the river Inako. Soon Shinga is reached beyond which the line passes through three tunnels before it enters Idemizu. After passing two more tunnels, it emerges upon the cultivated land where Katsuura station is planned. The line turns right, intersects the Boso highway and runs skirting the shore until Kushimaha is reached.

The topographical features of the district traversed by the line are generally level as far as Onjuku, but further on exceedingly hilly up to Katsuura.

The ruling gradient is one in 100 and the sharpest curves of 15 chains radius.

The survey of the section was taken in hand in January, 1911 and completed in May, which was followed by the purchase of land.

The work on the subsection between 35 m. 68 ch. 95 lin. and 41 m. 77 ch. from Chiba was started in September and the subsection between 41 m. 77 ch. and 44 m. 26 ch. from the same starting point in November, 1911, but no noteworthy progress was made for both sections.

Technical inspectors' quarters were erected at Onjuku, Ohara and Katsuura.

The temporary storehouse on the Tongane station premises was transplanted to the premises of Ohara station, and was re-arranged for the storage of cement.

(13) OITA LINE.

Yanagigaura-Yasaka Section.—The construction of this section was practically completed and opened for traffic within the preceding year, and the remaining portion of the work completed for this year comprised the ground-making and the erection of main buildings at Yanagigaura and Nagasu stations, and the construction of a filter bed and reservoir for water supply service at Tateishi. The building of the Yanagigaura engine house was taken in hand in July, 1911 and completed in November, and the work of feed water equipment was commenced in May and completed in August, while employees' boarding-house on the Yanagigaura station premises was started in as late as February, 1912 and made no more progress than about 2 parts.

Yasaka-Oita Section.—The subsection between Yasaka and Hiji was finished and opened for traffic at the end of the preceding year, and the remainder work undertaken this year included the construction of filter bed and water reservoir which was duly completed, while feed water equipment was taken in hand in May and finished in August, 1911.

In the subsecton between Hiji and Beppu the platelaying and bridge girders as well as the equipment of stations was completed, the line being opened for traffic on July 16th, 1911. The construction of overbridge for Beppu station was taken in hand in the same month and finished in October. The construction office at Nakatsu was transferred to Oita, the former location coming, with the extension of the open line, to be removed far from the actual seat of engineering work, much to the inconvenience of the men engaged therein.

The Beppu-Oita Secion, too, was completed as regards the platelaying and the construction of stations and accessory buildings and opened for traffic in November, 1911. The construction of the fan-shaped engine house was started in August, 1911 and completed about 5 parts.

(14) SAEKI LINE.

Oita-Shimonoe Section.—This line starts from Oita (89 m. 71 ch. 78 lin. from Moji) and terminates at Shimonoe, a distance of 17 m. 52 ch. 86 lin. The line at the outset runs through cultivated fields, and turning left, intersects the high road. Then it crosses the river Oita and reaches the village of Takio. Further on the line crosses the river Koyanagi and then turning right runs along the hillside as far as the villages of Higashi Oita, after passing which it enters the village of Momozono and reaches Takaki station located in the rice fields at the foot of hills. A little beyond the station the line turns right and after intersecting the highroad and crossing the river Yanatsu enters Mikawa and crosses the river Otsu before it reaches Tsuruzaki, in the northern part of which a station of the same name is planned in the cultivated fields. Then it crosses the rivers Furu and Ono and after proceeding for some distance with the

village of Ozai on the right turns left. Thenceforward the line proceeds parallel to the highroad, crosses the river Ori, and turning right intersects the highroad. Then turning left, it follows a straight course along the foot of a hill and emerges upon the plain of Kosai. Then it pursues an eastern direction through the cultivated fields, and crossing the river Tamanose enters the village of Sagaichi. Here the line makes a bend to the left and running across the borders reaches a plain on the sea-shore where is planned Sakanoichi station. Further on it crosses the river Kanemichi and turning right intersects the highroad. Then it crosses the river and turning left reaches the village of Kozaki through a range of hills. Further on it crosses the river Koneko and reaches a plain where is planned Kozaki station. After leaving the station the character of the country assumes a mountaineous aspect and the line is obliged to intersect the spurs of numerous mountain chains forming the eastern boundaries of the village of Kisakamitani; these mountains and ravines must be cut through in some cases and filled in others, while a number of gorges have to be either led under the line or crossed on bridges. After passing through 3 tunnels in its zigzag course along the narrow winding valleys, the line traverses a tableland and reaches where Shimonoe station is planned on a curve.

On account of the mountaineous character of the country the line has to make a very circuitous course throughout the length, the ruling gradient being one in 66 and the sharpest curve of 20 chain radius.

The working survey of the section was taken in hand in April, 1011 and completed in September. The purchase of land is still in progress. The construction work was started in February, 1912 and no noteworthy progress was made.

Temporary quarters and storehouses required on the section were mostly transferred from the Oita line and remodelled for the purposes.

Shimonoe-Aoe Section.—This line starts from Shimonoe (17 m. 52 ch. 86 lin.) and terminates at Aoe, a distance of 9 m. 7ch. The line at first pursues a south-westerly direction and turning right and then left runs through cultivated fields. Then crossing the river Kumazaki and intersecting the highroad wends its way until it reaches the town of Usuki by way of the village of Shimotsuru. Further on it crosses the river Suehiro and then the river Usuki between which two rivers the line makes two turns one to the left and one to the right. Beyond the river Usuki is situated the town of the same name at the eastern prominence of which two tunnels are bored. After this it crosses the river Umizoe and reaches a plain on the sea coast where Usuki station is planned. Proceeding further, the line intersects the high road for the second time and passing through the Sagarimatsu tunnel turns left and passes Uminaka on the Mizugaura bridge. Further on it turns right, passes through No. 1 Itachi tunnel and then turns left beyond No. 2 tunnel. Then the line passes through Otomari and Hibinotani and turning right comes to where is bored Otomari tunnel. Then it runs along mountain side and turning left crosses the river Otomari. Further on it passes through the Tokuura tunnel and after crossing the river Tokuura pursues a winding course along mountain side till it reaches Aoe village after passing through Nos. 1 & 2 Torigoe tunnels. Then turning left it wends its way in a wide curve among farm houses lying scattered till it emerges upon cultivated fields where it crosses the river Aoe and reaches the terminus of the line. The physical condition of the districts is much the same as in the foregoing line, the ruling gradient being one in 66, and the sharpest curve of 18 chain radius. The working survey of this section was finished in succession to that of the foregoing line, but no start was made with the construction work, the process of purchasing land being still going on.

(17) TOKUSHIMA LINE.

Kawada-Ikeda Section.—This section starts from Kawadaichi (20 m. 62 ch. 17 lin. from Tokushima) and terminates at Ikeda, a distance of 25 m. 27 ch. 20 lin.

A little way from the starting point the line passes through Funado where a station is planned, and then intersecting tht highroad twice and boring a tunnel at Tsuzumi hill, it runs westward and parallel to the highroad as far as the foot of Jizo Hill. Then cutting the hillside and crossing a stream on a bridge the line turns left and intersects the highroad obliquely. Further on it crosses the river Anabuki on a bridge and pursues a north-westerly direction till, after crossing the local road, it reaches the southern outskirts of Iwade where Anabuki station is planned. Here the line makes a leftward bend and diverging from the main course of the river Yoshino traverses mulberry fields. Then the line crosses the river Otani and after turning left once more runs close by the river Yoshino. Further on the line turns right and then left, passes through cultivated fields and reaches the southern extremity of Kojima, Mishima village, where Kojima station is planned. Thenceforward the line runs parallel to the highroad, and crossing the river Otani takes in a bee-line over cultivated fields. Then it turns left, skirts a mountain foot, crosses a river, and reaches the town of Sadamitsu where is planned the station of the same name. Now the line pursues a north-westerly direction, and after intersecting the local road wends its way up to the north end of Ono in the village, of Handa, where is planned a station of the same name. Further on the line crosses the river Handa and enters Miyoshi district where after making several turns it gradually draws near the river Yoshino for the third time. Beyond this the line keeps its course

parallel to the high road till it crosses the river Inotani and reaches the east end of Nakanosho, where Eguchi station is planned. Then it runs westward finding its way among the farm houses lying scattered and after crossing the river Kamoya traverses the large plain of Kamo where Kamo station is planned. Further on the line crosses the river Inari, turns right, intersects the high road and comes upon the river Yoshino along the precipitous bank of which the line zigzags till it makes the town of Tsuji where on the further side of the river Nishinotani is planned Tsuji section. The line thenceforward runs side by side with the high road and pursues a westerly direction passing through a plain at the back of Nishii and is led to the town of Ikeda after crossing several streams. Then the line makes a gradual ascent in a zigzag and finally reaches Inada west of Ikeda where Ikeda station is planned. This section being on the whole level the ruling gradient is one in 100 and the sharpest curve of 15 chain radius.

(16) SENDAI LINE.

With a view to facilitating the connexion between the Kagoshima and the Sendai line the reconstruction of Kagoshima station was started in June, 1911. Apart from some inconveniences arising out of the fact that the work involved part of the line in operation, there were other difficulties in that the diversion of roads had to be carried out through sections of the town where street traffic was briskly going on, but it is satisfactory to note that earth and other works were completed 6.7 parts.

While the work on the subsection between 0 m. 25 ch. and 2 m. 61 ch. 70 lin. which passed through the city, enjoyed great facilities so far as concerns the conveyance of construction materials, considerable difficulties were to be experienced in carrying out the work where the line intersects the main and other roads, and also in disposing of the debris produced by the boring of the Shiroyama tunnel at its eastern entrance and the cutting of the side slopes along the track. Earth amounting to some 5,000 cubic *tsubo* required for the filling work at Take station, not being obtainable in the vicinity, had to be sent for a spot more than 1 miles distant. The heading of the Shiroyama tunnel was bored through in October, 1911, and the widening work is now in progress. The flood which took place in September of the same year washed away the temporary bridges over the river Kotsuki and considerably retarded the bridging work. Then in the excavation there was a considerable rush of water, which had to be pumped out by means of steam engines. The foundation work over, the masonry is now in progress. Altogether the work was completed about 5 parts for earth work, 7.2 parts for bridging, 7.4 for the construction of culverts 2.6 parts for tunneling, and 3.8 parts for the laying of pipes.

As regards the work on the subsection Take and 3 m. 54 ch. from the same starting point, continued from the preceding year, it would have been a matter of comparatively easy engineering in view of the facilities the line enjoyed in the supply of earth, were it not for the great flood which happened in September, 1911 and swept away the embankment for a matter of 500 cubic *tsubo* of earth. As it was, the work has not made progress as speedily as was originally prescribed. The same flood also inflicted much damage upon the bridges and culverts in course of construction, occasioning an unexpected rush of water which had to be pumped out by means of a steam engine. Apart from the fact that the unfortunate event seriously hampered the excavation work, it also involved the construction of a number of additional flood openings and open culverts against similar occurrences in future. Besides, the work on the Hiroki tunnel, the boring of which was completed in May, 1911, made very tardy progress owing to an alteration in the plan as regards its formation of the tunnel, the alteration happening in the course of the widening work and entailing the re-arrangement of the timbering. The work was completed 7.9 parts for tunneling, 9.3 parts for construction of culverts and laying of drains.

The construction on the subsection between 3 m. 54 ch. and 8 m. 41 ch. was taken in hand in April, 1911. The section lay so far removed from the main road that great inconveniences were experienced in conveying materials, which considerably retarded the progress. Besides, the section required no less than 500,000 cubic *tsubo* of earth in the embankment which in the highest point reached an altitude of 80 feet. To make matters worse, the embankment was washed away for the matter of 500 *tsubo* of earth in consequence of a great storm which took place in September. The Manjuguchi entrance suffered equally badly from the calamity, the eastern approach being destroyed for 30 *tsubo*, the track inside depressed to the extent of 50 links and the western approach for 30 *tsubo*. Throughout the section the ground is largely composed of hard rocks, which together with considerable rush of water, seriously hampered the work so that the boring of the heading was still unfinished. The work was finished about 5.4 parts for earth work, 9.6 parts for bridge laying, 4.1 parts for tunneling, and 8.6 parts for the construction of culverts and water drain.

The work on the section between 6 m. 41 ch. and 10 m. 30 ch. 15 lin. was started in April, 1911. In September, while the work was still going on, a flood took place and washed away about 900 *tsubo* of the embankment, converting the neighbourhood of the station into one vast sheet of water, besides washing away the face of the embankment for some 500 cubic *tsubo*. Nor was the damage confined to the above, for the cutting work undertaken in connection with

the divertion of the river Kami near 9 m. which was buried under debris. This unfortunate incident made it necessary to alter the original plan, and to strengthen the bridge with an additional set of girders 40 feet long.

The work was completed about 7.9 parts as regards earth work, 8.1 parts for bridging, 7.9 parts for culverts, and 9.6 parts for water drains.

Temporary lines were laid in the yard of Kagoshima station for the special purpose of conveying bridge girders, rails, etc. to be used for the Sendai line.

All of the buildings on this line were newly constructed excepting the labourers' quarters and accommodation which were removed from the Kagoshima line where they had become useless.

Ijuin-Sendai Section.—This section starts from Naka-Ijuin (13 m. 14 ch. from Kagoshima) and terminates at Sendai, a distance of 31 m. 3 ch. At the very outset the line passes through the Tokushige tunnel and after running in a zigzag along the right bank of the river Kaminogawa for same distance, crosses the river Noda, passes through a tunnel, and enters the village of Higashi-Ichiki where is planned a station of the same name. Then pursuing a westerly direction it crosses the river Maekawa, intersects the highway, and crosses the river Yuda, before it reaches Yunomoto, a place noted for its spa, where Yunomoto station is planned. Then it heads north and proceeds along the right bank of the river Yuda as far as the village of Nishi-Ichiki where is planned a station of the same name. Thenceforth the line takes an upward course over the hills at the rear of Minato, crosses the river Yafusa, and enters the village of Kushikino where, after traversing the plain in a straight line beyond the river Minato, it reaches Shimona, the site of Kushikino station. Gotanda and now enters the gorge in Mount Satsuma. Here the line proceeds along the mountain side overlooking the highway on the left and after making several turns crosses the same highway. Then it proceeds over Mount Kinzan, Kushikino, and descends upon cultivated fields after traversing which it crosses the river Hirahara and enters the village of Kumanojo where Kushikino station is planned. Further on the line crosses the river Koba beyond which it pursues an upward course with a heavy incline as far as the Oshiroe plain, where it crosses the rivers Nos. 1 & 2 Oshiroe, Aramaki, Sakizaki, Oga, Kumanojo, and Hirase. Near in the town of Sendai is planned a station, at the extremity of which the line crosses the river Haruta, and terminate at 31 m. 3 ch. from the starting point. The greater part of the line runs parallel to the highway through the districts which are partly level and partly hilly. The ruling gradient is one in 50 and the sharpest curve of 15 chain radius.

The working survey of this section was taken in hand in December, 1910, and completed in July, 1011. Purchase of land for the section was nearly finished. It may be mentioned incidentally that the grounds for the three stations of Higashi-Ichiki, Yumoto and Nishi-Ichiki have been contributed by the respective villages where these stations are located.

The work on subsection between 13 m. 14 ch. and 13 m. and 15 ch. from Kagoshima station in hand in September, 1911. Throughout this subsection there were no difficulties to be encountered as regards earth and bridging work. The tunnelling work, too, made such a considerable progress owing to the favourable condition of the strata, the headings of the Tokushige and the Naeshirogawa tunnels being already bored through. The construction of sidewalls and pavements are also making steady progress, the supply of stones being made by the quarry in the vicinity. The work on the section was completed 7.2 parts for earth work, 5.5 parts for bridging, 7.2 parts for the construction of culverts, and 5.1 parts for tunnelling and 9 parts for the laying of drain pipes.

The work on the subsection between 16 m. 15 ch. and 20 m. 6 ch. was taken in hand in September, 1911. The work, though attended by no particular difficulties, made rather tardy progress owing to the fact that the line had to be conducted alongside of, or close to, the public highway with brisk traffic or laid with pressure wires for telegraph use, where the use of explosives was absolutely precluded in the execution of cutting work. The work was completed about 6.2 parts for earthwork, 3.6 parts for bridges, 7.8 parts for culverts, and 5.8 parts for water drains.

The work on the subsection between 20 m. 50 ch. and 27 m. 41 ch. was started in Tovember, 1911, while the line runs along the public highway through a flat country for the greater part, it enjoys every facility in the supply of materials owing to its contiguity to the sea shore accessible by ships, but the progress of the work was hampered by the death of the contractor which involved the contract being relieved halfway.

The work on the subsection between 23 m. 50 ch. and 27 m. 41 ch. was taken in hand in February, 1912. The line which is laid alongside the public highway for the greater part, involved the diversion of roads as well as the provision of level crossings at a number of places. Then, as it traverses the mineral districts, cutting and excavation had to be undertaken in hard rocky strata. This fact as well as the short time that has elapsed since the inception of the work, prevented the work to be brought to a stage worth mentioning.

(17) MIYAZAKI LINE.

Yoshimatsu-Kobayashi Section.—With a view to facilitating the connection between the Miyazaki and the Kagoshima lines the reconstruction of Yoshimatsu station was taken in hand in August, 1911. Although some difficulties were experienced in consequence of the work involving part of the line in operation, it made

a satisfactory progress and was completed in January, 1912.

The work on the subsection between 0 m. 15 ch. and 5 m. 14 ch. from Yoshimatsu was continued from the preceding year. While the earthwork proved comparatively easy, the construction of No. 2 Sendai bridge, the hardest work throughout this section, was further hampered by the floods which took place several times during the period extending from May to September and destroyed coffer dams as many times, and washed away the temporary bridges laid for the debris produced by the cutting.

The work on the subsection between 5 m. 14 ch. and 9 m. 70 ch. was continued from the preceding year. Though hampered by the difficulty in conveying stone for building purpose all the way from Mt. Kirishima where the material was quarried out, fair progress was made with the work owing to the level ground traversed by the line. The section was completed in January, 1912.

The work on the subsection betwen 9 m. 70 ch. and 16 m. 74 ch. was taken in hand. As on the foregoing section, the section had to be laid along the foot of Mt. Kirishima where hills and ravines succeed one another, and no small amount of difficulty was experienced in carrying the materials along the rugged road. The delay suffered on that account, however, was more than compensated by the sandy condition of the ground which served to greatly expedite the embanking and cutting works, so much so that the section was completed about 9 parts.

Temporary line were laid in the Yoshimatsu station yard for the purpose of conveying ballast used for this section.

At Yoshimatsu station the main building and shed were newly constructed and the old ones removed to Kabuto station. Besides, 11 official residences and accessory buildings were erected, the total area covering 200 *tsubo*. Out of all the buildings on this section nine with 146 *tsubo* were removed from Kagoshima line where they had become useless.

Kobayashi-Miyakonojo Section—This lines starts from Kobayashi, 16 m. 74 ch. from Yoshimatsu and terminates at the northern extremity of the town of Miyakonojo, a distance of 21 m. 44 ch. 22 lin. After turning to the left the line crosses the Kawanoshi canal and the river Tsujido, and then crossing another river called Fukuhara enters the village of Takahara where it traverses in a straight line an expanse of rice-paddies near 8 m. 40 ch., turns right and then left, and crossing the rivers Irisa and Aikubo, runs through hilly districts till it reaches Nishifumoto where is planned Takahara station. Thenceforward the line proceeds through flat land as far sa the village of Takasaki beyond which it pursues a southern direction along the left bank of the river of the same name, and crosses the river Kariya and the highway before it reaches Sinden where is planned Takasaki-Shinden station. Beyond the station it proceeds in a southern direction crosses the main course of the river Takasaki and turns left and enters the village of Yamada. Then turning right it crosses the rivers Kinokawa and Uchi, and reaches Takahara. Further on the line leads skirting the western end of the vilage of Shiwaji and enters the village of Yamada again. Further on the line crosses the river Maruya and reaches Tanigashira where a station of the same name is planned. Then it crosses the rivers Yasunaga and the Yokaichi, and then turning left reaches Miyamaru in the town of Miyakonojo. Then it heads east and crosses the river Shihida and the highway before it finally reaches Kawahigashi at the northern extremity of Miyakonojo. The greater part of this line passes through hilly districts amply watered by rivers and streams. The ruling gradient is one in 60 and the sharpest curve of 15 ch. radius.

The working survey of the whole section was commenced in October, 1910, and finished in April, 1911, while the purchase of land for the section was completed.

The construction work on the subsection between 16 m. 73 ch. and 22 m. 9 ch. was started in August, 1911. This line which skirts the north-eastern foot of Mount Kirishima where hills and ravines lie intermingled with each other, involved a great amount of embankments and cuttings.

The difficulty of laying this section was further increased by the geological condition of the locality traversed by the line, consisting of sandy soil mixed with volcanic ashes. The work, however, was rapidly proceeded with especially since the repair of the road was effected in order to facilitate the conveyance of materials. The section was completed about 4.3 parts for earthwork, 4 parts for bridging, about 3 parts for culverts and 7.6 parts for drain pipes.

The work on the subsection 22 m. 9 ch. and 27 m. 40 ch. was taken in hand in September, 1911. On account of the location of the section which practically keeps close to the river Takasaki and the local road, some difficulty was experienced in the bridging work, while the road had to be diverted and the tributaries to be spanned at a number of places. The work, however, made a comparatively rapid progress and was completed 6.3 parts for earthwork, 1.3 parts for bridging, 3.4 parts for culverts and 8.3 parts for drain pipes.

The work on the subsection between 27 m. 40 ch. was started in November, 1911. Owing to the weak strata which marks the section for the greater part, earthwork was carried out with comparative ease, while on the other hand, the same circumstance necessitated the foundations of all buildings to be solidified by piling. Then the roads available were of so poor a character that no small measure of difficulty was experienced in the way of conveyance of materials. In addition to this, earthen pipes had to be transported by sea all the way from the city of Nagoya, which seriously hampered delivery and hence the progress of the work. The section was completed 4.2 parts for earthwork, 1.2 parts for culverts, and 7 parts for drain pipes.

The work on the section between 33 m. 7 ch. and 38 m 4 ch. was started simultaneously with the foregoing section. The locality traversed by the line

abounds in rivers, which entailed the construction of five bridges of more than 100 feet long. Though for the conveyance of materials the line is favourably situated, running, as it does, along the public road throughout its length, the work was seriously hampered by the scarcity of materials available in the vicinity, the supply of which had consequently to be sought from afar. The soft soil of the section made the embanking and cutting works comparatively easy, but on the other hand, the excavation for bridges was attended by no small measure of difficulty in pumping out considerable rush of water. The section was completed 2 parts for earthwork, 1 part for bridging, 2 parts for culverts and 7 parts for drain pipes.

12 buildings covering 132 *tsubo* were transferred from the Kagoshima line where they had become useless, the rest being new constructions.

(18) ABASHIRI LINE.

Kamitoshibetsu-Okido Section.—The work on the subsection between Kamitoshibetsu and Rikumbetsu was completed within the preceding year, and the work undertaken this year comprised platelaying, the installation of signal apparatus and indicators, etc. The line was opened for traffic on September 25th, 1911.

Okido-Nokkeushi Section—Earth and bridging works, the laying of water drains, the erection of platforms and goods sheds were completed within the preceding year and the remainder work undertaken this year comprised the construction of station buildings, the installation of turntables, ash-pits, signal apparatus and indictors, the laying of sidings, ballasting, etc. The line was opened for traffic on the same day as the foregoing line.

Nokkeushi-Abashiri Section.—On the subsection between Nokkeushi and Bihoro were carried out the construction of No. 1 bridge over the river Tokoro and 11 other bridges of culverts at 6 places together with connected earthwork, the construction of coal stages, water tanks, and ash-pits, the provision of the employees' accommodation. On the subsection between Hashino and Bihoro were undertaken earthwork, the construction of culverts and the laying of drain pipes which were completed about 9 parts, as also the construction of platforms, loading stages, and employees' accommodation.

The platelaying on this section was completed about 5 parts and the tunnelling finished.

(19) TESHIO LINE.

Nayoro-Chiebun Section.—The earthwork, the construction of bridges and culverts, and the laying of water drains on this section were completed within the preceding year, and the remainder work undertaken this year comprised the extention of cuttings and the construction of retaining walls, where necessary, the erection of station buildings, plate laying, the installation of signal apparatus and indicators, etc. The section was opened for traffic on November 3rd, 1911.

Chiebun-Sakkuru Section.—On the subsection between Chiebun and Onnenai were carried out earthwork, the construction of retaining walls, bridges, station buildings, water tanks, ash-pits, official residences and employees' accommodation, the installation of telegraphic apparatus, etc. The line was opened for traffic on the same day as the foregoing section.

On the subsection between Onnenai and Sakkuru the earthwork, the construction of bridges and culverts, and the laying of water drains were taken in hand in April 1911 and was completed excepting the laying of bridge girders. The construction of platforms, loading stages, temporary official residences and accessory buildings at Sakkuru station was also finished.

(20) SHIMOFURANO LINE.

Takikawa-Shimoashibetsu Section.—Earthwork, the construction of bridges and culverts, and the laying of water drains on this subsection was completed excepting earthwork incidental to the bridging over the river Takane, and part of the laying of bridge girders. Platforms and loading stages were constructed for Horokura, Kamiakahira and Hiragi stations. Platelaying was carried out to the extent of 15 miles and ballasting of 930 *tsubo*.

The ground-making for the erection of station buildings, goods sheds, and other buildings at stations undertaken in connection with the expansion of Takikawa station was completed about 6 parts, and the construction of overbridges, official residences and employees' accommodation finished.

Shimoashibetsu-Shimofurano Section.—The earth-

work, the construction of bridges and culverts and the laying of drain pipes on the subsection between Hommojiri and Shimofurano was completed about 6 parts. The work on the subsection between Shimoashibetsu and Hommojiri taken in hand in September, 1911 has not make progress worth mentioning owing to the snow season which set in immediately after the work was started. The ground-making undertaken in connection with the expansion of Shimofurano station was completed about 7 parts. The construction of an engine house, official residences and employees' accommodation, water tanks, ash-pits and coal stage were also carried out for the same station.

(21) LIGHT RAILWAYS.

Moka Line (Shimodate - Moka). — This line branches off at Shimodate station, Mito line, and heads northward as far as Isa, Ibaraki prefecture, whence it continues its northerly direction until the village of Nakamura is reached where Orimoto station is planned. Further on it leads in a straight line to the town of Shimoda, Tochigi prefecture, where a station is planned. Beyond the station it passes forest land and reaches the site of the contemplated Terauchi station. Then it turns right, crosses the river Enokawa, and terminates at Moka station, the southern extremity of the town.

The distance of the line measures 10 m. 29 ch. 45 lin. The district traversed by the line is generally level. The ruling gradient is one in 110 and the sharpest curve of 15 chain radius.

The survey of the line was taken in hand in May, 1911 and completed in June. The purchase of land was subsequently undertaken. The construction work was started with earth and other works on April 20th which, with the exception of a small portion of platelaying and ballasting, were brought to completion within the year under review.

Kuroishi Line (Kawabe-Kuroishi). — This line starts from Kawabe station, Aomori prefecture, 282 m. 62 ch. from Fukushima, and proceeds northeast for a distance of more than 35 chains where it turns right and heads eastward. Passing through Maedayashiki and Shinden, it runs skirting the northern extremity of the town of Kuroishi and thence keeps on its easterly direction for 4 m. 5 ch. 50 lin. until the terminus of Kuroishi is reached.

The distance of the line is 4 m. 13 ch. 60 lin. The district traversed by the line is generally level. The ruling gradient is one in 100 and the sharpest curve of 20 chain radius.

The work on this line was started and completed within the year as regards part of the earth work and the foundation work for three culverts, while purchase of land was finished for the greater part and the inspectors' accommodation and temporary storehouses were erected.

Kurayoshi Line (Agei-Kurayoshi). — This line starts from Agei station, (43 m. 52 ch. 50 lin. from Sakai). San-in line, and terminates at the town of Kurayoshi, the northern outskirts of the town of Kurayoshi, a distance of 2 m. 64 ch. The district traversed by the line is generally level. The ruling gradient is one in 120 and the sharpest curve of 13 chain radius.

The earth and other works on the line were taken in hand in December, 1911 and completed about 3 parts by the end of the year. The work is energetically proceeded with in the hope of having it opened for traffic at the beginning of the next fiscal year.

The construction of Kurayoshi station and other buildings, which were started in May, 1912, showed no noteworthly progress.

Yubetsu Line (Nokkeushi-Rubeshibe).—This line starts from Nokkeushi station (87 m. 1 ch. from Ikeda), Abashiri line, and proceeds southwest and with a slight inclination toward northwest by west enters Makahara field. Then running along the river Mukahara for a while, and making a slight bend to the left, it heads west and through several villages and across two rivers, reaches Ainokawa station. Beyond the station it makes a slight inclination toward left and passing through a village, intersects the imaginary local road crosses the river Shian untill after a slight turn to right, Kami-Ainouchi station is reached. Further on, the line heads westward parallel to the imaginary road and on the south of Mimura begins to mount up the high land. Then it intersects the foregoing local road two more time and across the river Mika turns right near 14 m. whence it follows a south easternly direction until Rubeshibe station is reached.

The distance of the line measures 14 m. 7 ch. 65.2 lin.

The ruling gradient is one in 100 and the sharpest curve of 15 chain radius.

It is arranged that the line should be taken in hand at the beginning of the next fiscal year as regards earthwork, bridging and other works, and to that end in view a temporary house for the storage of cement was newly erected together with technical inspectors' quarters and accessory buildings.

Iwanai Line (Kozawa-Iwanai Line).—This line starts from Kozawa station, Hakodate main line, (127 m. 33 ch. from Hakodate). The line leads northwest along the right bank of the river Horikabu and skirts the foot of mountain ranges and, after crossing a number of streams and the local highway between Iwanai and Kozawa, enters the village of Maeda at 2 m. 72 ch. on the levelling pole. So far the line makes a very circuitous course owing to the mountaneous character of the district it traverses.

Further on it turns right and follows the existing Horse Tram Way track, the ground being generally level for the whole distance. At 4 m. 2 ch. 88 lin.

on the levelling pole it crosses the river Horikaku and the river Nakano before it reaches Maeda station at 5 m. 46 ch. After crossing the river Sokonai the line makes a bend to the left at 7 m. 29 ch. 50 lin. and pursues a southwesterly direction until across the imaginary local road it emerges upon the seashore at the town of Iwanai, whence it crosses the river Iwanai station at 9 m. 22 ch. on the levelling pole.

The distance of the line measures 9 m. 37 ch., the ruling gradient being one in 80 and the sharpest curve of 15 chain radius.

The construction of this line was taken in hand in October, 1911, but owing to the snow season which set in soon after, the work has made but very tardy progress.

(22) REMAINDER CONSTRUCTION WORKS OF THE O-U LINE. (AKITA-AOMORI.)

The Sannai hydraulic power canal on the Akita-Odate section was completed within the preceding year, but in order to ensure the solidity of the slopes of cuttings and embankments of the canal, the construction of retaining walls, pointing and facing thereof with concrete and mortar, and other additional works were carried out. Then employees' accommodation was erected, and additional land was purchased.

The Tsuchizaki Works were equipped as enumerated in Chapter 7, while the Akita engine house was repaired, ash-pit reconstructed and erection of the main building of Noshiro station and accessory structures were completed.

The extension of sidings, ground-making and provision of level-crossing for the goods office in Aomori station, continued from the preceding year, were completed.

(23) REMAINDER CONSTRUCTION WORKS OF THE KAGOSHIMA LINE.

Hitoyoshi-Yoshimatsu Section.—The laying of additional sidings in the Hitoyoshi station yard and ballasting incidental thereto were carried out, while the construction of water reservoir and shed for feeder pipes in the Yatsushito station yard were completed.

Hitoyoshi-Yoshimatsu Section.—In order to ensure the safety working of trains, a signal cabin was built and No. 1 interlocking apparatus installed in the Masaki station yard, while the erection of a goods shed and other works were completed.

The laying of additional sidings in the Yoshimatsu station yard and ballasting incidental thereto were completed, as was also the erection of a coal stage.

Kokubu-Kagoshima Section.—In order to secure the perfect drainage of the Kagoshima station yard, ditching and drainage works were carried out.

(24 REMAINDER CONSTRUCTION WORKS OF THE HOKKAIDO LINES.

Rumoi Line (Fukagawa-Rumoi).—Part of the section was treated with additional ballast.

Kushiro Line (Asahigawa-Kushiro).—The improvement on tracks near 55 miles from Kushiro, rearrangement of the Atsunai station yard, the construction of 9 bridges (No. 1 to No. 9) over the river Atsunai, and connected works, continued from the preceding year, were completed, while the new work for the year under review comprised the ground-making and laying of additional sidings in the Shinnai station yard, the laying of earthen pipes at 37 m. 15 15 ch. 50 lin. from Sorachiputo, the reconstruction of bridges at 71 m. 42 ch. 9 lin. and one other place, the strengthening with iron girders of No. 9 Atsunaigawa and 9 other bridges and culverts. Furthermore, the laying of drain pipes at 47 m. 15 ch. 26 lin. from Sorachiputo and 11 other places, the reconstruction of No. 2 Satsunaigawa bridge, the strengthening of 6 bridges and one culvert with iron girders were carried out.

Teshio Line (Asahigawa - Nayoro). — The strengthening with iron girders of several bridges on the Shibetsu-Nayoro section, continued from the preceding year, was completed, while overbridges were built at Nagayama, Shibetsu and Nayoro stations and 3 more bridges were strengthened with iron girders.

Sapporo Works —The earth work in the shape of ground-making and levelling, continued from the preceding year, was completed within the year under review.

CHAPTER XVI.

EXPERIMENTS AND TESTING.

(1) CHEMICAL EXPERIMENTS ON RAILWAY MATERIALS.

Chemical experiments carried out on cement, coal, bricks, oils and other railway materials numbered 5,710 cases, made up as follows:—

Cement (Volcanic ashes included)	3,099
Coal	183
Bricks	514
Oils	584
Metals	58
Woolen cloths (*Kokura* fabric included)	314
Rubbers	10
Paints	207
Water	580
Medicines	26
Stone	88
Miscellaneous	47
Total	5,710

(2) TESTING ON THE STRENGTH OF METALS.

The arrangements for carrying out testing on metals as railway materials were nearly completed by the end of the year under review, and testing was conducted on the following materials:—

Steel boiler pipes	2
Wheels	1
Rails	2
Materials for iron bridge building	26
Bar iron	10
Iron as building material	16
Total	57

(3) TESTING ON THE STRAINS AND DEFLECTIONS OF BRIDGES.

Testing was carried out on the strength and deflection of the girders of the following bridges:—

Bridge over the River Kozenji, Tokaido main line.
Bridge over the River Kiso, Tokaido main line.
Bridge over the River Aizawa, Tokaido main line.
Bridge No. 2 over the River Sakawa, Tokaido main line.
Bridge over the River Banyu, Tokaido main line.
Bridge over the River Rokugo, Tokaido main line.
Bridge over the River Fuji, Tokaido main line.
Bridge over the River Akashi, San-yo main line.
Bridge over the River Tone, North-Eastern main line.
Bridge over the River Ayase, North-Eastern main line.
Bridge over the River Sumida, Joban line.
*Bridge over the River Sai, Shin-Etsu line.
(*Testing on the horizontal oscillation carried out as well).

CHAPTER XVII.

RELIEF ASSOCIATION.

(1) MEMBERSHIP.

The roll of the Association on March 31st, 1912 comprised 90,717, amounting to 87.7 per cent. of the total employees of the Imperial Government Railways (103,425).

These are classified as under:—

A class	75,975
B class	667
C class	14,075
Total	90,717

N.B.—Class A comprises those engaged in outdoor work and contribute to the Fund 3 per cent. of their monthly stipends, and class B comprised employees or inferiors employed in office work or regular clerks who join the Association at their own option. Members of either class must have been in the service for at least 6 months and who are not less than 15 and not more than 50 years old; class C covers all those members not coming under either A or B class and who are not required to contribute to the Fund.

The following table shows the growth of members for five years since the inception of the Association:—

At the end of year	No.	Inc. or dec. (▲) against preceding year
1907	77,922	—
1908	77,842	▲ 80
1909	79,088	1,246
1910	84,096	5,008
1911	90,717	6,621

During the year under review, 28,077 were admitted to the Association, these being classified as under:—

Newly engaged in railway service	27,790
Transferred from indoor to outdoor service	361
Admitted on their own initiative	26
Total	28,077

21,456 members were struck off the list, the secessions being accounted for as follows:—

Retired from railway service	19,094
Promoted to officials of the *hannin* rank or transferred to the indoor service	644
Summoned by the army or the navy	955
Died	763
Total	21,456

The following shows the mortalities of the membership classified as to causes:—

	Year under review	Preceding year
Injuries sustained on duty	231	199
Injuries sustained not on duty	12	34
Suicide	13	6
Death from natural causes	507	504
Total	763	743

While in the record of deaths from natural causes, no appreciable fluctuations are noticed as compared with the returns of the preceding year, an increase of more than 20 per cent. is shown in the deaths caused by injuries sustained on duty, the latter being classified as follows:—

Station service	136 (57 of C class included)
Maintenance of way service	49
Engine house service	29
Workshop service	11
Miscellaneous	6
Total	231

Under the station service, among the 136 cases of death from injuries sustained on duty 84 or about 6 per cent. of the total are accounted for by couplers and porters, the mortalities being for most part attributable to serious sustained while attending the uncoupling of trains. What claims special attention is that the rate of deaths of this kind are highest among C class employees who have not full six months been in the service.

The mortalities from natural causes are as follows:—

Kind	No.
Respiratory organs	193
Digestive organs	83
Nervous system or sense organs	73
Blood circulation system	35
Uriogenital diseases	28
Acute epidemics	25
Kakke (beriberi)	17
Miscellaneous	53
Total	507

Cases of the pulmonary tuberculosis account for 64 per cent. of the returns under "Respiratory organs." The following table shows the number of fatalities out of every 100 due to the troubles in the respiratory and the digestive organs:—

	Fatalities from respiratory organs	Fatalities from digestive organs
Station service	23.0	6.6
Engine house service	19.8	9.6
Workshop service	23.4	8.6
Maintenance of way service	15.3	14.0

From the above it will be seen that the troubles in the respiratory organs figures highest in the station and workshop services, while those in the digestive in the maintenance of way service.

Though the total cases of mortality reached a big number of 763, it may be regarded as reassuring sign that the record falls short of the estimated rate of mortality, i.e. 851.

The following shows the membership as classified by age. (the figures given below under "age" do not represent the results computed on the ordinary twelve-month bases, but are the number of consecutive calender years each case has actually lived, inclusive of the year of his birth and the year under review).

Age	No.
12-19	8,926
20-29	38,921
30-39	27,439
40-49	11,566
50-59	3,307
more than 60	560
Total	90,717

The average age of the same according to the jurisdiction is given as follows:—

Eastern Divisional Superintendent Office	29.04
Central Divisional Superintendent Office	29.10
Western Divisional Superintendent Office	28.11
Kyushu Divisional Superintendent Office	27.07
Hokkaido Divisional Superintendent Office	29.06
Yonago Branch Office	27.10
Construction Offices	31.11
Head Office	28.11
Average of total	29.02

On the whole list the oldest is 79 years represented by a servant of the Iwamizawa Works, Hokkaido Superintendent Office, and the Youngest 12 years represented by two boys in the employ of the Central and the Hokkaido Superintendent Offices. Those ranging between 12 and 19 years of age account for a little less than 10 per cent. of the total, those between 20 and 29 for a little below 43 per cent., those between 30 and 39 for a little over 30 per cent., and those between 40 and 49 for a little less than 12 per cent., while those above 50 represent no more than 40 per cent. and a little over, the highest percentage belonging to those between 20 and 29, and especially to those of 29 years old.

The movements of the membershinp are shown below:—

Jurisdiction	Description									
	Admission				Secession					
	Compulsory	Transferred from indoor service	Voluntary	Total	Death	Transferred to indoor service	Summoned by the Army or the Navy	Retired from railway service	Total	Balance
Head Office	315	4	—	39	1	32	—	75	108	211
Eastern Div. Sup't. Office	4,870	95	7	4,972	173	60	229	3,699	4,161	811
Central Div. Sup't. Office	7,456	71	6	7,533	212	134	208	4,355	4,909	2,624
Western Div. Sup't. Office	7,623	67	2	7,692	189	140	238	5,818	6,385	1,307
Kyushu Div. Sup't. Office	3,385	26	1	3,412	82	129	158	2,352	2,721	691
Hokkaido Div. Sup't. Office	3,009	46	7	3,062	83	68	88	2,321	2,560	502
Yonago Branch Office	476	16	2	494	13	16	19	279	327	167
Total	26,818	321	25	27,164	752	545	940	18,817	21,054	6,110
Construction Offices	557	36	1	594	10	67	15	202	294	300
Grand total	27,790	361	26	28,077	763	644	955	19,094	21,456	6,621
Preceding year	20,799	1,300	31	23,130	743	481	1,043	15,440	17,707	4,423

(3) DISBURSEMENTS.

During the year the receipts totalled 862,655.12 yen, consisting of 330,416.76 yen on account of Government subsidy, 451,131.89 yen of subscriptions from the members, 49,574.66 yen of bank interest, 18,604 yen of interest on bonds, 12,661.24 yen of receipts from the Tokiwa Hospital, 143.35 yen of contributions from the interested public and 123.22 yen of miscellaneous receipts.

(3) DISBURSEMENTS.

The amount of disbursements paid out of the coffer of the Association during the year aggregated ¥55,719.26 consisting of 26,860 cases, i.e. ¥127,388.45 for 618 injury grants, ¥137,230.62 for 627 death grants, ¥102,747.21 for medical allowance made to 7,287 cases (including ¥2,246.77 paid to the Osaka Branch Hospital of the Red Cross Society), ¥97,916.61 for repayments to 8,196 cases, ¥4,581.96 on account of the dressing rooms expenses for 10,132 cases, ¥24,353.69 for the Hospital expenses, and ¥17,494.11 for the buildings, tools and machinery expenses.

The following table shows the amount of each item of the grants and payments as averaged per capita:—

Kind	1911	1910	inc. or dec. (△)
	yen	*yen*	*yen*
Injury grant	206.13	231.58	△ 25.45
Medical allowance...	13.79	14.53	△ .74
Death grant	218.87	201.28	17.59
Repayment	11.95	9.93	2.02
Dressing rooms expenses	45	58	△ 13

The injury grants as given in the above table are classified as follows according to the grades of injury:—

Grade	No.	Amount	Per capita
		yen	*yen*
1st	219	85,382.00	389.87
2nd	9	2,795.40	310.60
3rd	95	18,205.50	191.64
4th	99	14,342.85	144.88
5th	196	6,662.70	33.99
Total	618	127,388.45	206.13

In reviewing the grants made to the members, it will be noted that though the nature of injuries is relatively slight, the workshop people generally represent a high rate of injuries, while with the employees connected with station, engine house and maintenance services, quite the reverse is the case, these being generally heavier in nature, though lowr in the rate.

During the year under review 7,287 cases received medical allowance, the total sum disbursed thereby being ¥100,500.44. In confining our attention to those cases granted ¥1,000 or over, it is seen that on the list of the workshop people the highest rate of injuries belongs to boiler shop mechanics, their cases working out to 351.10 for every 1000 men on the list at the end of the year. This is followed by smiths with 300.89, erecting shop workmen with 296.82, assistant mechanics with 297.16, finishing shop mechanics with 220.13 and wood-workers with 114.75.

Then adverting to the medical allowance paid to them as averaged per capita of the membership on the roll, it is found that smiths head the list with ¥2.268, followed in order by boiler shop mechanics with ¥2.134, erecting shop workmen with ¥1.884, assistant mechanics with ¥1.756, finishing shop workmen with ¥1.566 and woodworkers with ¥1.033.

Further, as regards the amount of medical allowance averaged per capita of the total number of the injured, woodworkers come up first with ¥9.002, followed by smithe with ¥7.536, finishing shop workmen with ¥7.114, erecting shop mechanics with ¥6.348, assistant mechanics with ¥6.289 and boiler shop people with ¥6.079.

On the other hand, with the labourers connected with station, engine and maintenance services, quite a different feature is in evidence, the rate of injuries being lower on the whole, but the proportion of heavy injuries figuring relatively higher. To confine our attention to cases granted an allowance of 1,000 yen or over, the highest rate is found to belong to coupler hands with their cases working out to a rate of 294 16 out of every 1000 on the roll at the end of the year. They are followed by coal-and-pumping men with 81.64, brakemen with 77.53, firemen with 76.48, goods porters with 76.43, labourers of permanent employ with 64.52 and engine drivers with 54 99.

Again as regards the amount of medical allowance averaged per capita of the membership, coupler hands also come up foremost with ¥8.545, followed by brakemen with ¥4.124, acting conductors with ¥1.69, constructors with ¥1.415, goods porters with ¥1.29, pointmen with ¥1.25 and labourers of permanent employ with ¥1.16.

Again, on averaging the above sum per capita of the total of the injured, the results are ¥91.145 for level crossing watchmen, ¥53.193 for brakemen, ¥43.442 for pointmen, ¥39.112 for constructors, ¥33.833 for acting conductors, ¥32.54 for porters, ¥29.045 for couplers, and ¥20.307 for conductors.

During the year under review 618 members were allowed injury grants, making ¥127,382.45, (i.e. ¥206.13 per capita). The first grade injuries comprised 219 cases, consisting of 43 couplers with ¥14,062.5 (i.e. ¥327.04 per capita), of 41 porters with ¥11,313 (i.e. ¥275.93 per capita), of 37 trackmen with ¥15,723 (i.e. ¥424.96 per capita), of 9 goods porters with ¥3,204 (i.e. ¥356), of pointmen with ¥3,708 (i.e. ¥463.5), of 8 engine drivers with ¥6,002 (i.e. ¥750.25 per capita), of 8 levelcrossing watchmen with ¥1,863 (i.e. ¥232.88 per capita), and others.

The second grade injuries comprised 9 cases, consisting of 4 couplers with ¥1,053.6 (i.e. ¥263.4 per capita), 2 porters with ¥486.6 (i.e. ¥243.3 per capita) and others.

The third grade injuries comprised 95 cases, consisting of 27 porters with ¥3,730.5 (i.e. ¥138.17 per capita), of 19 couplers with ¥3,219.3 (i.e. ¥169.44 per capita), of 8 trackmen with ¥1,502.4 (i.e. ¥187.8 per capita) of 6 pointmen with ¥1,284.3 (i.e. ¥214.05 per capita), and others.

The fourth grade injuries comprised 99 cases, consisting of 12 trackmen with ¥1,566.15 (i.e. ¥130.51 per capita), 11 porters with ¥1,197 (i.e. ¥108.82 per capita), of 8 couplers with ¥795.6 (i.e. ¥99.45 per capita), 7 assistant mechanics with ¥739.5 (i.e. ¥105.64 per capita).

The fifth grade injuries comprised 196 cases, consisting of 27 assistant mechanics with ¥663 (i.e. ¥24.56 per capita), of 23 couplers with ¥609.6 (i.e. ¥26.5 per capita), 22 porters with ¥463.5 (i.e. ¥21.07 per capita), of 14 trackmen with ¥414.9 (i.e. ¥29.64 per capita).

Turning, then, to the percentage of the injured under each grade to the total membership on the roll, the highest rate under the first grade belongs to couplers, being 296 out of every 10000 of the total members on the list. Next come acting conductors with 49, porters 48, brakemen 44, trackmen 32, goods porters 29 and level cross watchmen 28.

Under the second grade, brakemen head the list with 78, followed in order by couplers with 27 and pointmen with 3.

Under the third grade, couplers stand at the head with 131, brakemen second with 35 and porters third with 32.

Under the fourth grade, couplers, too, come up first with 55, followed by brakemen with 35, boiler shop mechanics with 32, erecting shop workmen with 27, assistant mechanics with 19 and woodworkers and coal-and-pumping men with 14 each.

Under the fifth grade the highest rate belongs to couplers with 158, which is followed in order by smiths with 74, erecting shop workmen with 50, boiler shop mechanics with 43, porters with 26 and coal-and-pumping men with 23.

(4) DRESSING ROOMS.

The Association is provided with four dressing rooms located at the Omiya, the Shimbashi, the Kobe and the Takatori Works. The number of members subjected to medical treatment at the rooms and the expenses paid out of the coffers of the Association were 2,644 cases realising ¥1,263 22 for the Omiya Works, 4,274 cases with ¥1,728.96 for the Shimbashi, 1,829 cases with ¥798.48 for the Kobe, 1,385 cases with ¥791.30 for the Takatori, total 10,132 cases with ¥4,581.96.

The expenses as averaged per capita of the persons treated work out to ¥.48 for the Omiya Works, ¥.4 for the Shimbashi, ¥.44 for the Kobe, ¥.57 for the Takatori and ¥.45 for the total.

Details are shown as under:—

Dressing rooms	Description					
	No. of injuries	Expenses	Average expense per capita of persons injured	No. of members	Rate per 10000 of injuries	Rate per 1000 of expeneses
Omiya	2,644	1,263.22	.48	2,740	965	461.03
Shimbashi	4,274	1,728.96	.40	2,666	1,603	648.52
Kobe	1,829	798.48	.44	1,663	1,100	480.14
Takatori	1,385	791.30	.57	1,665	832	475.26
Total	10,132	4,581.96	.45	8,734	1,160	524.61

(5) TOKIWA HOSPITAL.

The Tokiwa Hospital which was opened for service on May 18th, 1911, consists of six sections, i.e. internal, surgery, ophthalmology, otorhinolaryngology, and dermo-urinology. Patients are divided into three classes, the first class being composed of those injured on duty, the second of passengers and the third of officials and employees and their families. The following shows the in-patients as classified according to the sections and classes:—

Description	1st class		2nd class				3rd class				Total		
			Injuries		Diseases		Employees		Families				
	male	female	male	female	male	female	male	female	male	female	male	female	total
Internal	11	—	—	—	—	—	30	—	7	8	48	8	35
Surgery	158	—	3	—	—	—	34	3	20	15	215	18	233
Ophthalmolaryngology	15	—	—	—	—	—	11	—	3	3	29	3	32
Otorhinolaryngology	—	—	—	—	—	—	74	—	34	25	108	25	133
Dermo-urinology	1	—	—	—	—	—	30	—	9	4	40	4	44
Total	185	—	3	—	—	—	179	3	73	55	440	58	498

The out-patients who received treatment at the Hospital are made up as follows:—

Internal	Surgery	Ophthalmology	Otorhinolaryngology	Dermo-urinology	Total
1,732	927	837	934	849	5,279

The accounts for the Hospital during the year under review show ¥23,960.4 for receipts and ¥23,535.34 for disbursements.

(6) INJURY RELIEF ACCOUNT.

The excess of receipts over disbursements on the injury relief account claims special explanation. The abstract of the accounts for 1911 is given as under:—

1. Receipts:—

	yen
Subscriptions from members of A and C classes (one-hundredth of the total of salaries and wages)	165,208.38
Subscriptions from members B class (one-fifth of the total contributions)	3,414.67
Tools and machinery	17,438.62
Total	186,061.67

2. Disbursements:—

	yen
Injury grants	127,388.45
Medical allowance	102,747.21
Dressing rooms expenses	4,581.96
Expenses for the injured on duty (paid to the Tokiwa Hospital)	11,729.53
Total	246,447.15
3. Deficit	60,385.48

The following shows proportion of disbursements to one-hundredth of the total of salaries and wages, i.e. half the sum of Government subsidy in each year since the inception of the Association:—

Year	%
1907	.72
1908	1.79
1909	1.93
1910	1.62
1911	1.49

The returns given in the above table are the disbursements actually charged to the Account as proportioned to half the sum of Government subsidy, a markedly small percentage for 1907 being accounted for by the fact that a large proportion of cases that took place during the year were carried forward to the next year's account. It is noteworthy that the record for each year shows an excess of the actual returns over the estimates, the climax being reached in 1909. Though the percentage shows a gradual decline since 1910, it is regrettable that the excess is still in exidence in a substantial measure.

(7) ASSETS AND LIABILITIES ACCOUNT.

The following shows the assets and liabilities of the Association on March 31st, 1912.

Assets	*yen*
Current deposit	50,453.74
Fixed deposit	910,000.00
Negotiable bonds	549,372.00
Bank interest receivable	28,787.46
Interest on bonds receivable	9,333.31
Government subsidies receivable	29,006.65
Subscriptions from members receivable	26,179.22
Advances	963.43
Tools and machinery	18,253.14
Total	1,622,348.95

Liabilities.	*yen*
Legal reserve	1,598,738.55
Grants, medical allowance, and refunds payable	19,386.79
Securities kept in custody, etc.	210.91
Total	1,618,336.25
Balance, carried forward to the next year'sacount	4,012.70

(8) ACTUAL ACCOUNT OF RECEIPTS AND EXPENDITURES.

The following is the actual account of receipts and expenditures during the year under review:—

Receipts:—	*yen*
Brought over from the preceding year's account	1,159,853.31
Government subsidy	330,416.76
Subscriptions from members	451,131.89
Bank interest	49,574.66
Interest on bonds	18,604.00
Receipts from the Hospital	12,661.24
Contributions from the public	143.35
Sundries	123.22
Total	2,022,508.43

Expenditures:—	*yen*
Death grants	137,230.62
Injury grants	127,388.45
Medical allowance	102,747.21
Refunds	97,916.61
Dressing rooms expenses	4,581.96
Hospital expenses	24,353.69
Buildings, tools and machinery	17,494.11
Losses	6.61
Total	511,719.26
Balance, carried forward to the next year's account	1,510,789.17
Grand total	2,022,508.43

CHAPTER XVIII.

RAILWAY MUSEUM.

The need of a railway museum was early recognized by the Railway Authorities in order to elucidate in the first place the history of railway progress, secondly to furnish materials for determining railway policy, and thirdly to introduce the various features of the leading mode of overland transportation to the general public as well as to railway officials. The scope covered by such an arrangement, however, is of too extensive a nature to admit of the project being easily materialized with anything like completeness and it was therefore deemed advisable to make collection piece by piece until after years of patient research the stock may be brought to a completion. With this purpose in view, and especially to rescue reference objects of the past from being lost, appointments were made on May 4th, 1911 to attend to matters relative to the establishment of a railway museum. The collection of materials has assiduously been proceeded with and hope is entertained of creating in a few years a museum worthy of the name and the function.

Four pieces of grounds under the arches of the overhead railway located at Yurakucho, Kojimachi-ku, were allotted for a reception of materials to be collected pending the establishment of the museum, the site of which is to be decided upon later on.

Materials to be collected comprise matters relative to communications over the land and water, such as railways, electricity, workshops, etc., which are classified under twelve heads, i.e., Permanent way, Buildings, Signals, Rolling stock, Electricity, Workshops, Traffic, Rail and water connection, Stores, Supervision, Reference Articles and Miscellaneous.

The number of exhibits collected during the year totalled 409 (including 282 photos), made up as under:—

Permanent way	51
Buildings	148
Rolling Stock	49
Workshops	1
Traffic	54
Land and Water connection	2
Stores	1
Supervision	9
Reference articles	47
Miscellaneous	47

TABLES AND DIAGRAMS

TABLE NO. I.

GENERAL STATISTICS.

Item	Jurisdiction	Unit	Eastern Div. Sup't. Office	Central Div. Sup't. Office	Western Div. Sup't. Office	Kyushu Div. Sup't. Office	Hokkaido Div. Sup't. Office	Yonago Branch Office	Year under review	Inc. or dec. (△) against preceding year
Mileage	Length of lines worked	*m. c.*	1,359.65	1,081.69	1,081.52	596.25	785.55	137.47	5,043.20	173.44
	do. Single	,,	1,263.16	770.18	913.44	538.28	735.35	137.47	4,358.55	145.18
	do. Double	,,	94.36	308.47	168.08	37.77	50.20	—	679.28	28.26
	do. Triple	,,	—	.40	—	—	—	—	.40	—
	do. Quadruple	,,	2.13	2.44	—	—	—	—	4.57	—
Stations, etc.	Ordinary stations	*place*	331	275	326	158	163	35	1,288	52
	Passenger stations	,,	5	6	2	1	—	—	14	1
	Goods stations	,,	5	3	4	47	4	—	63	△ 1
	Rural stations	,,	—	—	4	1	—	—	5	1
	Electric car stands	,,	—	15	—	—	—	—	15	1
	Steam motor car stands	,,	—	—	4	—	—	—	4	—
	Total	,,	341	299	340	207	176	35	1,389	54
	Temporary stations	*place*	1	3	6	1	1	1	13	1
	,, platforms	,,	—	—	4	2	—	—	6	—
	Passenger, parcels and luggage office	,,	—	—	1	—	—	—	1	—
	Booking offices	,,	—	—	—	1	1	—	2	—
	Parcels and luggage offices	,,	—	1	1	2	—	—	4	1
	Parcels and goods offices	,,	—	1	—	2	1	—	4	3
	City railway offices	,,	—	3	3	—	—	—	6	—
	Junction stations	,,	3	2	1	3	—	—	9	—
	Signal stations	,,	9	17	13	8	1	—	48	10
	Water and coal stations	,,	—	—	—	—	1	—	1	△ 1
	Car inspection stations	,,	—	8	—	—	—	—	8	5
	Telegraph connection rings	,,	6	6	8	3	5	1	29	1
	Maintenance sections	,,	34	17	22	15	17	3	108	9

Rolling Stock	Locomotives		616	662	514	293	232	28	2,305	74
	Carriages		1,374	1,506	1,848	623	318	154	5,823	207
	Wagons		—	27,730	—	5,532	4,439	251	37,952	3,202
	Electric cars		—	66	—	—	—	—	66	22
	Steam motor cars		—	—	2	2	—	—	4	—
Shipping	No. of steamers		5	—	21	—	2	—	28	—
	Gross tonnage of steamers	*ton*	4,566.04	—	14,944.56	—	60.70	—	19,571.30	3,214.89
	Lighters		18	—	46	—	18	—	82	2
	Navigation mileage	*nautical mile*	60.0	—	311.8	—	—	—	371.8	12.0
Engine and Car Sheds	Engine sheds	*place*	29	26	28	16	18	2	119	2
	do., branch	„	5	1	11	—	1	1	19	—
	Electric car sheds	„	—	2	—	—	—	—	2	—
Electrical Equipment	Stations accepting public telegrams	*place*	225	174	233	127	93	10	862	42
	Length of wires of electric power cable	*ri. cho. ken*	72.03.16	144.03.45	40.11.15	26.17.41	12.27.09	.01.24	295,28.30	67.24.54
	Length of wires of telegraphic communication circuits.	„	4,983.01.10	4,511.05.42	3,711.30.53	1,631.12.04	2,478.19.14	131.35.32	17,447.32.35	3,277.09.16
	Electric lights		7,714	10,725	10,287	3,777	3,172	187	35,862	9,495
	Generating stations	*place*	2	2	6	4	4	—	18	—
	Transformer stations	„	2	3	2	—	1	—	8	1
Works	Works	*place*	4	4	8	3	5	—	24	1
Permanent Way and Land	Aggregate length of tracks	*m. c.*	1,908.68	1,757.49	1,588.33	911.03	1,085.63	172.51	7,424.27	371.46
	„ bridges	*ft.*	128,007	140,047	208,035	90,870	70,415	16,026	653,400	34,237
	„ tunnels	„	117,087	227,320	127,380	84,167	34,972	48,602	639,528	69,140
	Area of buildings	*tsubo*	193,224	157,399	167,127	74,143	120,688	10,960	723,541	49,157
	„ premises	„	13,058,735	12,153,718	10,624,616	6,315,240	25,208,876	1,197,447	68,558,632	3,915,947
Officials and Employees	Officials and employees		23,576	25,907	24,427	13,579	10,109	1,765	99,363	7,074
	Monthly salaries	*yen*	414,343.04	477,258.60	462,869.16	238,023.08	199,051.87	28,962.27	1,820,508.02	147,616.92
	Capital	*yen*	Special 185,079,776			Borrowed 687,150,222			872,229,998	49,033,491

TABLE NO. I.

GENERAL STATISTICS.—*Continued.*

Item		Unit	Eastern Div. Sup't. Office	Central Div. Sup't. Office	Western Div. Sup't. Office	Kyushu Div. Sup't. Office	Hokkaido Div. Sup't. Office	Yonago Branch Office	Year under review	Inc. or dec. (△) against preceding year
Transportation	Train mileage	*mile*	12,953,431	13,207,703	12,023,179	5,935,790	4,156,276	454,405	48,730,784	3,960,066
	Car mileage	„	248,395,863	238,893,377	205,601,262	113,934,013	87,693,787	5,111,551	899,629,853	67,673,808
	No. of passengers		30,233,789	54,087,039	50,123,872	15,769,727	5,033,151	1,888,327	151,077,779	12,448,073
	„ carried one mile		681,592,100	1,119,071,441	1,078,230,402	315,489,198	160,769,469	27,433,801	3,382,586,411	343,849,445
	Receipt from passengers	*yen*	9,630,002	14,801,102	15,019,875	4,684,877	2,307,588	422,870	46,866,314	4,721,318
	Tonnage of goods	*ton*	6,570,577	6,570,220	5,620,234	10,397,781	3,583,636	135,043	29,337,054	3,855,186
	„ hauled one mile	„	712,181,162	592,207,822	441,898,362	338,984,309	257,622,196	4,977,624	2,847,481,575	221,037,002
	Receipts from goods	*yen*	12,784,828	11,465,427	8,129,945	8,082,489	4,952,451	159,042	45,574,182	4,815,868
Working	Locomotive mileage	*mile*	15,553,510.7	16,112,314.5	13,521,155.9	7,326,540.0	4,976,364.9	482,306.7	57,972,192.7	5,023,042.1
	Car mileage converted	„	255,094,462.0	258,798,973.0	215,691,316.7	149,272,370.6	80,797,470.3	5,266,909.4	964,921,502.0	70,508,262.5
	Fuel consumed for running	*kin*	762,337,011	601,515,486	445,911,530	216,805,210	245,816,683	12,135,350	2,284,521,270	254,943,478
	„ valued at	*yen*	1,360,649	2,364,992	1,387,174	503,004	418,514	40,193	6,074,556	△ 212,496
	Oil consumed for running	*koku*	3,697	4,558	3,019	1,388	1,240	93	13,995	1,683
	„ valued at	*yen*	63,302	75,517	55,063	26,272	25,919	1,577	247,650	—
Rolling Stock made or repaired	Engine and rolling stock newly made: Locos.		—	—	—	—	—	—	86	86
	Pass. cars		—	—	—	—	—	—	262	41
	Goods wagons		—	—	—	—	—	—	2,273	2,257
	Engine and rolling stock newly made or repaired: Locos.		1,007	415	312	267	206	—	2,207	225
	Pass. cars		2,514	2,824	3,659	648	653	—	10,298	1,310
	Goods wagons		19,647	10,628	25,870	6,142	12,128	—	74,415	15,014
Electricity	No. of telegrams: Railway		7,992,884	12,534,733	9,681,950	3,044,042	4,544,496	318,885	38,116,990	4,056,039
	Public		1,405,108	1,455,450	1,544,443	1,033,998	819,727	31,998	6,310,814	326,558
	Total		9,397,992	13,990,273	11,226,393	4,098,040	5,364,223	350,883	44,427,804	4,382,597
	Volume of current generated	*k. w. h.*	971,222	6,685,666	2,497,637	533,862	767,318	—	11,455,705	2,733,786

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TABLE NO. II.

TRAIN MILEAGE.

Item \ Jurisdiction	Eastern Divisional Superintendent Office		Central Divisional Superintendent Office		Western Divisional Superintendent Office		Kyushu Divisional Superintendent Office		Hokkaido Divisional Superintendent Office		Yonago Branch Office		Grand total	
	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year
	mile	*mile*	*mile*	*mile*	*mile*	*mile*	*mile*	*mile*	*mile*	*mile*	*mile*	*mile*	*mile*	*mile*
Mileage worked	1,357.5	14.5	1,082.6	26.3	1,083.8	42.2	596.5	9.7	785.8	61.3	137.9	19.8	5,044.1	173.8
do. (average during the year).	1,345.2	6.0	1,074.9	36.8	1,062.3	35.3	591.7	21.8	753.8	72.3	122.4	10.8	4,950.3	183.0
Passenger train mileage...	3,602,526	487,814	5,560,210	552,703	6,060,374	372,234	1,320,727	158,625	631,086	273,340	222,518	21,638	17,197.441	1,866,354
Goods train mileage	5,389,942	856,286	5,302,365	486,331	3,356,229	277,457	2,639,157	202,988	1,713,313	184,332	7,595	9,096	18,408.601	2,014,490
Mixed train mileage	3,936,677	.. 110,457	1,987,531	54,898	2,603,892	△ 8,861	1,963,820	79,662	1,811,877	134,366	424,292	21,254	12,728.089	11,538
Running mileage of electric or steam motor cars converted	24,286	3,228	357,597	52,987	2,684	△ 432	12,086	11,901	0	0	0	0	396,653	67,684
Total	12,953.431	1,236,871	13,207,703	1,146,919	12,023,179	640,398	5,935,790	293,852	4,156,276	592,038	454,405	49,988	48,730,784	3,960,066
Average train mileage per day — Ordinary trains	35,326	3,284	35,110	2,901	32,843	1,666	16,185	728	11,356	1,591	1,242	134	132,060	10,302
Average train mileage per day — Electric or steam motor cars ...	66	8	977	142	7	△ 2	33	32	0	0	0	0	1,084	183
Average train mileage per day — Total	35,392	3,292	36,087	3,044	32,850	1,664	16,218	761	11,356	1,591	1,242	134	133,144	10,484
Average No. of trains per day — Ordinary trains	26.3	2.4	32.8	1.7	30.9	.5	27.4	.3	15.1	.8	10.1	.2	26.7	1.2
Average No. of trains per day — Electric or steam motor cars ...	30.2	4.0	34.2	4.5	1.0	.2	1.5	.7	0	0	0	0	17.8	△ 4.2
Average No. of trains per day — Total	26.3	2.3	33.6	1.8	30.9	.5	27.4	.3	15.1	.8	10.1	.2	26.9	1.2

N. B.—The train mileage for electric and steam motor cars is computed on the basis of 10 cars = 1 train.

In calculating the average number of trains per day, the returns of ordinary trains are computed upon the basis of the total mileage less the mileage of sections opened exclusively for the operation of electric or steam motor cars, the returns of the electric and steam motor cars upon the mileage opened exclusively for them, and total upon the aggregate mileage.

TABLE NO. III.

CAR MILEAGE.

Item \ Jurisdiction	Eastern Divisional Superintendent Office		Central Divisional Superintendent Office		Western Divisional Superintendent Office		Kyushu Divisional Superintendent Office		Hokkaido Divisional Superintendent Office		Yonago Branch Office		Grand total	
	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year
Pass. Carriages :—														
Car mileage (passenger train)	*mile* 41,248,598	*mile* 6,502,062	*mile* 66,259,083	*mile* 6,974,775	*mile* 73,651,335	*mile* 5,251,731	*mile* 16,767,531	*mile* 1,897,242	*mile* 6,451,319	*mile* 2,317,880	*mile* 241,673	*mile* 230,105	*mile* 204,619,539	*mile* 23,173,795
„ „ (goods train)	23,579,686	△ 1,282,230	13,626,270	398,152	18,650,578	△ 614,616	11,649,522	△ 369,294	9,744,328	△ 644,543	3,294,852	42,836	△ 80,545,236	△ 2,555,367
„ „ (mixed train)	665,985	83,100	1,019,764	131,406	689,823	43,343	256,814	93,631	117,028	14,421	31	31	2,749,445	365,938
„ „ (electric cars or steam motor cars	242,838	32,264	3,575,982	529,897	26,847	△ 4,310	120,820	118,960	0	0	0	0	3,966,487	676,817
Total	65,737,107	5,335,202	84,481,099	8,034,230	93,018,583	4,676,148	28,794,687	1,740,545	16,312,675	1,687,758	3,536,556	187,300	291,880,707	21,661,183
Goods Wagons :—														
Car mileage (goods train)	136,237,548	16,482,856	132,025,977	9,922,292	87,184,904	7,675,352	68,801,305	6,072,903	47,661,833	5,324,401	139,270	133,036	472,050,837	45,610,839
„ „ (passenger train)	45,444,921	△ 1,766,510	14,332,602	△ 1,796,386	13,573,844	895,009	16,338,021	66,511	23,291,758	1,255,661	1,429,247	104,305	114,410,393	△ 1,241,410
„ „ (mixed train)	976,287	259,018	8,053,699	789,468	11,823,931	313,703	0	0	427,521	274,529	6,478	6,478	21,287,916	1,643,196
Total	182,658,756	14,975,364	154,412,278	8,915,374	112,582,679	8,884,064	85,139,326	6,139,414	71,381,112	6,854,591	1,574,995	243,818	607,749,146	46,012,625
Grand total	248,395,863	20,310,566	238,893,377	16,949,604	205,601,262	13,560,212	113,934,013	7,879,959	87,693,787	8,542,349	5,111,551	431,118	899,629,853	67,673,808

TABLE NO. IV.

TRAFFIC RECEIPTS

Item \ Jurisdiction		Eastern Divisional Superintendent Office		Central Divisional Superintendent Office		Western Divisional Superintendent Office		Kyushu Divisional Superintendent Office		Hokkaido Divisional Superintendent Office		Yonago Branch Office		Grand total	
		Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against Preceding year
Traffic receipts	Coaching	yen 10,405,409	1,090,594	16,154,077	1,714,571	16,210,995	1,534,200	4,967,812	320,391	2,493,949	396,620	442,017	84,804	50,674,259	5,141,180
	Wagon	„ 12,789,617	1,457,303	11,477,611	1,096,267	8,208,926	968,999	8,085,820	882,688	4,954,210	385,676	159,509	27,530	45,675,693	4,818,463
	Total	„ 23,195,026	2,547,897	27,631,688	2,810,838	24,419,921	2,503,199	13,053,632	1,203,079	7,448,159	782,296	601,526	112,334	96,349,952	9,959,643
Average receipts per mile		„ 17,242.81	1,825.30	25,706.29	1,796.41	22,987.78	1,647.25	22,061.23	1,267.14	9,880.82	99.66	4,914.43	530.99	19,463.46	1,342.03
Average receipts per day per mile		„ 47.11	4.87	70.24	4.73	62.81	4.34	60.28	3.31	27.00	.20	13.43	1.42	53.18	3.53
Steamship receipts		„ 632,882	93,941	0	△ 5,434	1,466,416	106,844	—	—	—	—	—	—	2,099,298	195,351
Grand total...		„ 23,827,908	2,641,838	27,631,688	2,805,404	25,886,337	2,610,043	13,053,632	1,203,079	7,448,159	782,296	601,526	112,334	98,449,250	10,154,994
Average receipts per day		65,104	7,060	75,496	7,479	70,728	6,957	35,666	3,199	20,350	2,087	1,644	304	268,987	27,085

N. B.—In the returns of shipping receipts under the head of the Western Superintendent Office are included car ferry charges across the Strait of Shimonoseki amounting to 52,880 yen.

TABLE NO. V.

RESULTS OF PASSENGER TRAFFIC.

Item \ Jurisdiction	Eastern Divisional Superintendent Office		Central Divisional Superintendent Office		Western Divisional Superintendent Office		Kyushu Divisional Superintendent Office		Hokkaido Divisional Superintendent Office		Yonago Branch Office		Grand total	
	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year
Mileage worked	*mile* 1,351.7	14.5	1,070.5	19.8	1,080.3	46.3	566.4	10.1	784.1	61.3	137.9	19.8	4,990.9	171.8
Average mileage worked	„ 1,339.4	6.5	1,064.0	31.5	1,056.8	37.4	562.1	22.4	752.1	72.3	122.4	10.8	4,896.8	180.6
Train mileage	„ 5,378,825	94,549	6,892,920	599,020	7,465,712	276,029	2,528,159	190,155	1,418,885	187,686	367,148	30,006	24,051,649	1,377,445
Car mileage	„ 65,737,107	5,335,202	84,481,099	8,034,230	93,018,583	4,676,148	28,794,687	1,740,545	16,312,675	1,687,758	3,536,556	187,300	291,880,707	21,661,183
Average number of cars per train	12.2	.8	12.3	.2	12.5	.2	11.4	△ .2	11.5	.4	9.6	△ .3	12.1	.2
Aggregate car days			2,127,598	154,452			304,991	37,396	136,242	8,166	53,012	5,772	2,621,843	205,786
Average mileage per day per car.	*mile*		114	0			94	△ 7	120	6	67	△ 4	111	△ 1
Number of Passengers — 1st Class	13,144	4,231	240,218	10,512	183,012	9,917	39,331	3,752	2,966	352	129	87	444,102	21,177
Number of Passengers — 2nd Class	1,138,551	115,676	2,762,672	233,395	2,532,671	229,059	805,772	15,318	237,017	12,925	57,999	16,972	7,068,115	567,514
Number of Passengers — 3rd Class	29,064,094	2,883,062	51,084,149	6,048,199	47,408,189	2,905,324	14,924,624	47,767	4,793,168	659,054	1,830,199	234,085	143,565,562	11,859,382
Number of Passengers — Total	30,233,789	3,002,969	54,087,039	6,292,106	50,123,872	3,144,300	15,769,727	66,837	5,033,151	672,331	1,888,327	251,144	151,077,779	12,448,073
Average number of passengers per day	82,606	8,001	147,779	16,834	136,950	8,239	43,087	65	13,752	1,805	5,159	674	412,781	32,974
Aggregate passenger mileage — 1st Class	3,668,442	702,895	14,611,094	429,857	10,904,295	772,410	2,209,041	346,091	381,095	69,440	5,657	4,805	31,779,624	2,325,498
Aggregate passenger mileage — 2nd Class	55,532,429	7,158,804	126,576,961	13,517,161	107,459,295	11,743,918	30,075,006	2,726,190	13,371,899	1,394,685	1,505,451	694,460	334,521,041	37,235,218
Aggregate passenger mileage — 3rd Class	622,391,229	64,031,930	977,883,386	118,695,875	959,866,812	79,072,050	283,205,151	14,500,448	147,016,475	22,960,276	25,922,693	5,028,150	3,016,285,746	304,288,729
Aggregate passenger mileage — Total	681,592,100	71,893,629	1,119,071,441	132,642,893	1,078,230,402	91,588,378	315,489,198	17,572,729	160,769,469	24,424,401	27,433,801	5,727,415	3,382,586,411	343,849,445
Average mileage per passenger — 1st Class	*mile* 117.8	7.6	60.8	△ .9	59.6	1.1	56.2	3.8	128.5	9.3	43.9	23.6	71.6	2.0
Average mileage per passenger — 2nd Class	„ 48.8	1.5	45.8	1.1	42.4	.8	37.3	2.7	56.4	3.0	26.0	6.2	47.3	1.6
Average mileage per passenger — 3rd Class	„ 21.4	.1	19.1	0	20.2	.4	19.0	.9	30.7	.7	14.2	1.1	21.0	.4
Average mileage per passenger — Total	„ 22.5	.1	20.7	.1	21.5	.5	20.0	1.0	31.9	.6	14.5	1.2	22.4	.5
Average number of passengers per day per mile worked	508,879	51,456	1,051,759	96,380	1,020,279	52,414	561,269	9,265	213,761	13,195	224,132	29,630	690,775	46,415
Average number of passengers per mile worked	1,390	137	2,874	257	2,788	136	1,534	22	584	35	612	79	1,887	122
Average number of passengers per train mile	126.7	11.3	162.4	5.7	144.4	7.2	124.8	△ 2.6	113.3	2.6	74.7	10.3	140.6	6.6
Average number of passengers per vehicle mile	10.4	.3	13.2	.3	11.6	.4	11·0	0	9.9	.6	7.8	1.3	11.6	.4

RESULTS OF PASSENGER TRAFFIC.—*Continued.*

Item	Jurisdiction	Eastern Divisional Superintendent Office		Central Divisional Superintendent Office		Western Divisional Superintendent Office		Kyushu Divisional Superintendent Office		Hokkaido Divisional Superintendent Office		Yonago Branch Office		Grand total	
		Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year
Coaching receipt — Fares — 1st Class	*yen*	117,528	24,449	466,944	19,614	349,867	7,492	67,924	10,976	13,685	4,119	218	70	1,016,166	66,720
Fares — 2nd Class	„	1,057,933	127,996	2,356,750	250,839	1,985,699	192,993	606,588	51,011	283,841	41.309	32,262	13,362	6,323,073	677,510
Fares — 3rd Class	„	8,454,541	874,860	11,977,408	1,284,686	12,684,309	1,200,300	4,010,365	231,275	2,010,062	319,419	390,390	66,548	39,527,075	3,977,088
Fares — Total	„	9,630,002	1,027,305	14,801,102	1,555,139	15,019,875	1,400,785	4,684,877	293,262	2,307,588	364,847	422,870	79,980	46,866,314	4,721,318
Coaching receipt — Parcels and luggage	„	489,862	47,554	935,701	139,384	813,321	119,348	180,440	20,176	105,530	15,929	9,978	3,114	2,534,832	345,505
Coaching receipt — Post	„	232,402	6,386	315,971	4,110	312,423	2,297	79,629	2,712	59,547	9,398	6,590	1,280	1,006,562	26,183
Coaching receipt — Platform tickets	„	39,375	4,431	74,813	5,613	36,108	4,677	15,699	2,441	15,923	2,763	1,354	476	183,272	20,401
Coaching receipt — Sundry	„	13,768	4,918	26,490	10,325	29,268	7,093	7,167	1,800	5,361	3,683	1,225	46	83,279	27,773
Coaching receipt — Total	„	10,405,409	1,090,594	16,154,077	1,714,571	16,210,995	534,200	4,967,812	320,391	2,493,949	396,620	442,017	84,804	50,674,259	5,141,180
Average coaching receipts per day.	„	28,430	2,910	44,137	4,577	44,292	4,082	13,573	840	6,814	1,063	1,208	229	138,454	13,706
Average coaching receipts per mile worked	„	7,769	781	15,182	1,197	15,340	943	8,838	227	3,316	231	3,611	410	10,348	693
Average daily receipts per mile worked	„	21.23	2.08	41.48	3.16	41.91	2.46	24.15	.56	9.06	.61	9.87	1.10	28.27	1.82
Average coaching receipts per train mile	„	1.93	.17	2.34	.05	2.17	.13	1.96	△ .03	1.76	.06	1.20	.14	2.11	.10
Average coaching receipts per car mile	„	1.58	.004	.191	.002	.174	.008	.173	.001	·153	.010	.125	.018	.174	.005
Average daily receipts per mile worked				20.10	.62			16.29	△ 1.08	18.31	1.93	8.34	.78	19.33	.48
Average receipts per passenger — 1st Class	*yen*	3.77	.31	1.94	△ .01	1.91	△ .07	1.73	.13	4.61	.95	1.96	1.83	2.29	.05
Average receipts per passenger — 2nd Class	„	.93	.02	.85	.02	.78	0	.75	.05	1.20	.12	.56	.10	.89	.02
Average receipts per passenger — 3rd Class	„	.29	0	.23	△ .01	.27	.01	.27	.02	.42	.01	.21	.01	.28	.01
Average receipts per passenger — Total	„	.32	0	.27	△ .01	.30	.01	.30	.02	.46	.01	.22	.01	.31	.01
Average receipts per passenger mile — 1st Class	„	.0320	.0006	.0320	.0005	.0321	△ .0017	.0307	.0001	.0359	.0052	.0385	△ .1352	.0320	△ .0002
Average receipts per passenger mile — 2nd Class	„	.0191	△ .0001	.0186	0	.0185	△ .0002	.0202	△ .0001	.0212	.0010	.0214	△ .0019	.0189	△ .0001
Average receipts per passenger mile — 3rd Class	„	.0136	0	.0122	△ .0002	.0132	.0002	.0142	.0001	.0137	.0001	.0151	△ .0004	.0131	0
Average receipts per passenger mile — Total	„	.0141	0	.0132	△ .0002	.0139	.0001	.0148	.0001	.0144	.0002	.0154	△ .0004	.0139	0
Tonnage of parcels and luggage, exclusive of postal matters	*ton*	18,153	2,078	31,464	3,623	26.724	3,364	5.777	840	2,888	377	.211	68	85,217	10,350
Average receipts per ton of parcels and luggage	*yen*	26.99	△ .53	29.74	1.14	30.43	·72	31.23	△ 1.23	36.54	.86	47.29	△ .71	29.75	.51

N. B.—In the train mileage is included the mileage of electric and steam motor cars converted at the rate of 10 cars=1 train, while the car mileage comprises the returns of electric and steam motor cars.

Under the aggregate car days are given the returns of cars on stock including those under repair.

TABLE NO. VI.

RESULTS OF GOODS TRAFFIC.

Item / Jurisdiction		Eastern Divisional Superintendent Office.		Central Divisional Superintendent Office		Western Divisional Superintendent Office		Kyushu Divisional Superintendent Office		Hokkaido Divisional Superintendent Office		Yonago Branch Office		Total	
		Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year
Mileage worked	*mile*	1,356.8	14.5	1,079.7	26.3	1,083.8	42.2	596.5	9.7	785.8	61.3	137.9	19.8	5,040.5	173.8
Average mileage worked	,,	1,344.5	6.0	1,072.0	36.3	1,062.3	35.3	591.7	21.8	753.8	72.3	122.4	10.8	4,946.7	182.5
Train mileage	,,	7,574,606	1,142,322	6,314,783	547,899	4,557,467	364,369	3,407,631	103,697	2,737,391	404,352	87,257	19,982	24,679,135	2,582,621
Vehicle mileage	,,	182,658,756	14,975,364	154,412,278	8,915,374	112,582,679	8,884,064	85,139,326	6,139,414	71,381,112	6,854,591	1,574,995	243,818	607,749,146	46,012,625
Empty wagon mileage	,,	45,398,012	1,773,982	29,181,372	△ 1,632,773	18,869,689	△ 362,587	30,482,019	2,162,532	26,044,860	1,879,578	427,235	△ 3,761	150,403,187	3,816,971
Empty wagon mileage per 100 vehicle miles	,,	25	△ 1	19	△ 2	17	△ 2	36	0	36	△ 1	27	△ 5	25	△ 1
Average number of vehicles coupled per train		24.1	△ 2.0	24.5	△ 7	24.7	.0	25.0	1.1	26.1	△ 1.6	18.1	△ 1.7	24.6	△ .8
Aggregate car days				11,448,751		603,590				1,681,213	9,423	66,049	4,737	13,196,013	617,750
Average daily mileage per wagon				47		1				42	3	24	2	46	1
Tonnage of goods — Ordinary consignment	*ton*	770,483	62,353	827,193	87,823	948,233	64,983	325,699	16,382	252,175	25,517	68,076	1,382	2,811,202	231,596
Tonnage of goods — Express ,,	,,	3,313	△ 1,213	23,459	△ 760	16,651	△ 233	1,463	58	832	6	331	16	26,644	△ 1,145
Tonnage of goods — Carload ,,	,,	5,796,781	933,904	5,719,568	908,280	4,655,350	617,737	10,070,619	1,275,382	3,330,629	327,427	66,636	8,914	26,499,208	3,624,735
Tonnage of goods — Total	,,	6,570,577	995,044	6,570,220	995,343	5,620,234	682,487	10,397,781	1,291,822	3,583,636	352,950	135,043	10,312	29,337,054	3,855,186
Average tonnage of goods per day	,,	17,952	2,677	17,951	2,677	15,356	1,828	28,409	3,461	9,791	940	369	27	80,156	10,343
Ton mileage — Ordinary consignment		66,733,390	4,458,868	63,163,408	5,125,005	94,318,353	13,193,444	17,503,268	1,043,812	16,355,442	2,153,247	2,492,685	336,598	260,506,546	26,310,974
Ton mileage — Express ,,		563,578	△ 161,893	4,717,207	△ 70,772	1,777,289	△ 47,251	153,311	237	131,248	7,478	14,519	5,361	7,357,152	△ 266,840
Ton mileage — Carload ,,		644,884,194	61,581,412	524,387,207	36,887,946	345,802,720	48,206,001	321,327,730	31,600,725	241,135,506	16,155,629	2,470,420	561,155	2,080,007,777	194,992,868
Ton mileage — Total		712,181,162	65,878,387	592,207,822	41,942,179	441,898,362	61,352,194	338,984,309	32,644,774	257,622,196	18,316,354	4,977,624	903,114	2,347,871,475	221,037,002
Average mileage of goods per ton — Ordinary consignment	*mile*	86.6	△ 1.3	76.3	△ 2.1	99.5	7.7	53.7	.5	64.9	2.2	36.6	4.3	92.7	1.9
Average mileage of goods per ton — Express ,,	,,	170.1	9.8	201.1	3.4	106.7	△ 1.4	104.8	△ 4.1	157.8	8.0	43.9	14.8	276.1	1.7
Average mileage of goods per ton — Carload ,,	,,	111.2	△ 8.8	91.7	△ 9.6	74.3	.6	31.9	△ 1.0	72.4	△ 2.5	37.1	4.0	78.5	△ 3.9
Average mileage of goods per ton — Total	,,	108.4	△ 7.5	90.1	△ 8.6	78.6	1.5	32.6	△ 1.0	71.9	△ 2.2	36.9	4.2	80.0	△ 3.5
Average tonnage of goods per mile worked	*ton*	529,700	46,844	552,433	21,135	415,983	45,441	572,899	35,367	341,765	△ 9,381	40,667	4,157	474,634	28,214
Average daily tonnage of goods per mile worked	,,	1,447	124	1,509	53	1,137	122	1,565	92	934	△ 28	111	1.1	1,297	74
Average tonnage of goods per train mile	,,	94.0	△ 6.5	93.8	1.6	97.0	6.2	99.5	6.8	94.1	△ 8.5	57.0	△ 3.6	95.1	1.2
Average tonnage per wagon mile	,,	3.9	0	3.8	0	3.9	.2	4.0	.1	3.6	△ .1	3.2	.1	3.9	.1
do. exclusive of empty wagon mileage	,,	5.2	0	4.7	.1	4.7	.2	6.2	.2	5.7	△ .2	4.3	△ .2	5.1	0

RESULTS OF GOODS TRAFFIC.—*Continued.*

Item	Jurisdiction	Eastern Divisional Superintendent Office		Central Divisional Superintendent Office		Western Divisional Superintendent Office		Kyushu Divisional Superintendent Office		Hokkaido Divisional Superintendent Office		Yonago Branch Office		Total	
		Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year
Goods receipts	Ordinary consignment	*yen* 2,511,807	285,851	2,527,474	255,682	2,278,955	326,282	682,073	62,486	614,744	85,106	75,522	14,396	8,690,575	1,029,803
	Express „	„ 47,597	△ 17,492	409,179	△ 15,646	162,965	1,129	11,010	△ 487	12,861	178	1,296	399	644,908	△ 31,919
	Carload „	„ 8,908,630	1,025,388	7,319,149	666,765	4,562,053	526,929	5,282,182	546,879	3,516,058	222,537	46,829	5,307	29,634,901	2,993,805
	Total	„ 11,468,034	1,293,747	10,255,802	906,801	7,003,973	854,340	5,975,265	608,878	4,143,663	307,821	123,647	20,102	38,970,384	3,991,689
	Terminal charges ...	„ 1,316,794	165,273	1,209,625	182,045	1,125,972	119,227	2,107,224	272,961	808,788	77,161	35,395	7,512	6,603,798	824,179
	Sundries	„ 4,789	△ 1,717	12,184	7,421	78,981	△ 4,568	3,331	849	1,759	694	467	△ 84	101,511	2,595
	Grand total ...	„ 12,789,617	1,457,303	11,477,611	1,096,267	8,208,926	968,999	8,085,820	882,688	4,954,210	385,676	159,509	27,530	45,675,693	4,818,463
Average freight receipts per day.		„ 34,944	3,897	31,360	2,918	22,429	2,594	22,092	2,357	13,536	1,019	436	74	124,797	12,859
Average freight receipts per mile worked		„ 9,513	1,047	10,707	683	7,728	678	13,665	1,026	6,572	△ 132	1,303	120	9,234	658
Average daily freight receipts per mile worked		„ 25.99	2.79	29.25	1.79	21.11	1.80	37.34	2.71	17.96	△ .41	3.56	.32	25.23	1.73
Average freight receipts per train mile		„ 1.69	.07	1.82	.02	1.80	.07	2.37	.19	1.81	△ .15	1.83	△ .13	1.85	0
Average freight receipts per wagon mile		„ .070	.002	.074	.003	.073	.003	.095	.004	.069	△ .002	.101	.002	.075	.002
do. exclusive of empty wagon mileage		„ .093	.002	.092	.001	.088	.002	.148	.006	.109	△ .004	.139	△ .008	.100	.002
Average daily freight receipts per wagon				3.54	.21					2.95	.22	2.42	.27	3.46	.21
Average rate per ton.	Ordinary consignment	„ 3.26	.12	3.06	△ .01	2.40	.19	2.09	.09	2.44	.10	1.11	.19	3.09	.12
	Express „	„ 14.37	△ .01	17.44	△ .10	9.79	.20	7.53	△ .65	15.46	.11	3.92	1.07	24.20	△ .16
	Carload „	„ 1.54	△ .08	1.28	△ .10	.98	△ .02	.52	△ .02	1.06	△ .04	.70	△ .02	1.12	△ 0.4
	Total	„ 1.75	△ .07	1.56	△ .12	1.25	0	.57	△ .02	1.16	△ .03	.92	.09	1.33	△ .04
Average terminal charges per ton		„ .20	△ .01	.18	△ .01	.20	0	.20	0	.23	0	.26	.04	.23	0
Average receipts per ton mile.	Ordinary consignment	„ .0376	.0019	.0401	.0009	.0242	.0001	.0390	.0014	.0376	.0003	.0303	.0019	.0334	.0007
	Express „	„ .0845	△ .0052	.0867	△ .0020	.0917	.0030	.0718	△ .0033	.0980	△ .0045	.0893	△ .0086	.0877	△ .0011
	Carload „	„ .0138	.0003	.0140	.0004	.0132	△ .0004	.0164	.0001	.0146	0	.0190	△ .0027	.0142	.0001
	Total	„ .0161	.0004	.0173	.0003	.0158	△ .0004	.0176	.0001	.0161	.0001	.0248	△ .0006	.0166	.0002
Average terminal charges per ton per mile		.0019	.0001	.0021	.0002	.0026	.0001	.0062	.0002	.0031	0	.0071	.0002	.0028	.0001

N.B.—Under the aggregate vehicle days are given the returns of all vehicles on stock, including those under repair, while the private vehicles in the charge of the Imperial Government Railways are also included in the returns.

Vehicles days not being separately calculable for the Western and the Kyushu Office, only the totals are mentioned.

The percentage of terminal charges is calculated upon the returns of ordinary and car-load consignments only.

TABLE NO. VII.

RESULTS OF SHIPPING SERVICE.

Route \ Item		Distance of route		Special mileage worked		Number of voyages		Number of Passenger						Number of Cargo	
								Not connected with railways		Connected with railways	Connected with railways	Total		Not connected with railways	
		Year under review	Inc. or dec. (▲) against preceding year	Year under review	Inc. or dec. (▲) against preceding year	Year under review	Inc. or dec. (▲) against preceding year	Year under review	Inc. or dec. (▲) against preceding year	Year under review	Inc. or dec. (▲) against preceding year	Year under review	Inc. or dec. (▲) against preceding year	Year under review	Inc. or dec. (▲) against preceding year
		mile	*mile*	*mile*	*mile*	*time*	*time*	*pass'ger*	*pass'ger*	*pass'ger*	*pass'ger*	*pass'ger*	*pass'ger*	*ton*	*ton*
Eastern Div. Sup't. Office	Aomori—Hakodate	60.0	—	100.0	—	1,557	65	48,602	▲ 2,477	240,490	35,336	289,092	32,859	43,798	10,475
	Aomori—Muroran—*provisional*	—	—	—	—	—	▲ 2	—	—	—	▲ 52	—	▲ 52	—	—
	Aomori—Yokohama—*provisional.*	—	▲ 522.7	—	▲ 450.7	—	▲ 2	—	—	—	▲ 648	—	▲ 648	—	—
	Total	60.0	▲ 522.7	100.0	▲ 450.7	1,557	61	48,602	▲ 2,477	240,490	34,636	289,092	32,159	43,798	10,475
Central Div. Sup't. Office	Aomori-Yokohama-Shimizu Atsuta—*provisional*	—	▲ 283.3	—	▲ 242.1	—	▲ 9	—	—	—	▲ 1,922	—	▲ 1,922	—	—
Western Div. Sup't. Office	Shimonoseki-Fusan	122.0	—	150.0	—	1,250	170	28,526	4,707	146,976	22,541	175,502	27,248	8,079	476
	Shimonoseki-Moji	1.5	—	10.0	—	11,618	498	213,711	20,914	550,987	25,047	764,698	45,961	66	▲ 203
	Uno-Takamatsu—*direct*	11.0	—	15.0	—	4,949	3,369								
	do. via Tosho—*discontinued*	—	▲ 25.0	—	▲ 30.0	—	▲ 1,698	34,155	4,186	188,150	76,053	222,305	80,239	60	▲ 10
	Takamatsu-Tosho	—	—	—	—	1,330	1,330								
	Miyajima-Itsukushima	1.3	—	2.0	—	10,381	9	154,194	▲ 6,009	240,335	23,065	394,529	17,056	—	—
	Maizuru-Sakai	124.0	—	150.0	—	527	▲ 33	1,755	▲ 672	22,371	▲ 6,994	24,126	▲ 7,666	420	▲ 7
	Maizuru-Miyazu	16.2	—	21.0	—	2,793	79	50,574	571	64,380	11,866	114,954	12,437	620	275
	Maizuru-Obama	29.5	—	35.0	—	518	28	3,931	213	3,142	1,422	7,073	1,635	650	366
	Ferry service in Miyazu Bay	6.3	—	—	—	2,449	901	34,021	▲ 336	—	—	34,021	▲ 336	1,635	▲ 48
	Uno-Utsumi—*provisional*	—	—	—	—	64	64	525	525	1,993	1,993	2,518	2,518	—	—
	Kobe-Moji-Wakamatsu—*provisional*	—	—	—	—	1	1	—	—	87	87	87	87	—	—
	Okayama-Takamatsu Onomichi-Tadotsu *discontinued*	—	▲ 59.5	—	▲ 67.0	—	411	—	▲ 44,274	—	▲ 27,501	—	▲ 71,775	—	—
	Total	311.8	▲ 84.5	383.0	▲ 67.0	35,880	2,505	520,807	▲ 20,088	1,218,345	127,503	1,739,152	107,415	11,107	849
Grand total		371.8	▲ 890.5	483.0	▲ 789.8	37,437	2,557	569,409	▲ 22,565	1,458,835	160,865	2,023,244	138,300	54,905	11,324

N. B.—The tonnage of goods or number of passengers carried over two lines or more are counted in separately for each line, while in the total these are counted but once.
In the returns of Shimonoseki-Moji are included car ferry charges inaugurated on October 1st, 1911 to the amount of 88,71 tons representating 52,380 yen.
The number of voyages according to lines refers only to the returns of passenger steamers.
The above table does not include the returns of the Takamatsu-Tosho line (suppressed on October 31st) representing 12 nautical miles and 15 specified open miles.

RESULTS OF SHIPPING SERVICE.—*Continued.*

Route	Item	Number of Cargo: Connected with railways — Year under review	Number of Cargo: Connected with railways — Inc. or dec. (△) against preceding year	Number of Cargo: Total — Year under review	Number of Cargo: Total — Inc. or dec. (△) against preceding year	Parcels & luggage — Year under review	Parcels & luggage — Inc. or dec. (△) against preceding year	Receipts from: Passenger — Year under review	Passenger — Inc. or dec. (△) against preceding year	Cargo — Year under review	Cargo — Inc. or dec. (△) against preceding year	Parcels & luggage — Year under review	Parcels & luggage — Inc. or dec. (△) against preceding year	Postal matter — Year under review	Postal matter — Inc. or dec. (△) against preceding year	Sum total — Year under review	Sum total — Inc. or dec. (△) against preceding year
		ton	*ton*	*ton*	*ton*	*ton*	*ton*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
Eastern Div. Sup't. Office	Aomori-Hakodate	69,788	7,140	113,586	17,615	2,462	476	306,672	29,885	296,167	68,992	8,965	1,442	21,078	△ 16	632,882	100,303
	Aomori-Muroran—*provisional*	—	—	—	—	—	—	—	△ 500	—	—	—	—	—	—	—	△ 500
	Aomori-Yokohama—*provisional*	—	—	—	—	—	△ 6	—	△ 3,771	—	—	—	△ 210	—	△ 1,881	—	△ 5,862
	Total	69,788	7,140	113,586	17,615	2,462	470	306,672	25,614	296,167	68,992	8,965	1,232	21,078	△ 1,897	632,882	93,941
Central Div. Sup't. Office	Aomori-Yokohama-Shimizu-Atsuta—*provisional*	—	—	—	—	—	△ 21	—	△ 3,550	—	—	—	△ 924	—	△ 960	—	△ 5,434
Western Div. Sup't. Office	Shimonoseki-Fusan	73,765	81,844	81,844	3,191	1,859	402	621,818	51,580	218,750	16,710	27,398	3,507	51,665	4,836	919,631	76,633
	Shimonoseki-Moji	138,043	138,109	138,109	45,547	2,788	537	78,112	5,073	84,126	24,904	12,650	2,468	1,697	△ 4	176,585	32,441
	Uno-Takamatsu—*direct*																
	do. via Tosho—*discontinued*	7,896	7,956	7,956	3,760	572	301	64,012	21,011	12,971	6,272	1,636	324	1,057	39	79,676	27,646
	Takamatsu-Tosho																
	Miyajima-Itsukushima	—	—	—	—	21	1	19,463	1,269	—	—	46	9	96	—	19,605	1,278
	Maizuru-Sakai	44,924	45,344	45,344	△ 4,387	307	70	70,334	△ 18,729	115,849	59	6,310	1,950	3,650	△ 368	196,143	△ 17,088
	Maizuru-Miyazu	7,514	8,134	8,134	565	140	34	42,306	4,638	10,069	946	1,009	326	828	52	54,212	5,962
	Maizuru-Obama	2,740	3,390	3,390	488	17	6	4,574	1,025	5,992	1,088	197	76	—	—	10,763	2,189
	Ferry service in Miyazu Bay	—	1,635	1,635	△ 48	—	—	2,960	17	1,686	△ 56	—	—	—	—	4,646	△ 73
	Uno-Utsumi—*provisional*	—	—	—	—	—	—	927	927	—	—	—	—	—	—	927	927
	Kobe-Moji-Wakamatsu—*provisional*	—	—	—	—	—	—	4,228	4,228	—	—	—	—	—	—	4,228	4,228
	Okayama-Takamatsu / Onomichi-Tadotsu—*discontinued*	—	—	—	△ 42	—	△ 62	—	△ 26,599	—	△ 68	—	445	—	△ 187	—	△ 27,299
	Total	274,435	285,542	285,542	49,074	5,704	△ 1,289	908,734	44,406	449,443	49,855	49,246	8,215	58,993	4,368	1,466,416	106,844
Grand total		344,223	55,365	399,128	66,689	8,166	1,738	1,215,406	66,470	745,610	118,847	58,211	8,523	80,071	1,511	2,099,298	195,351

TABLE NO. VIII.

LOCOMOTIVES AT THE END OF THE YEAR.

Class of Engine	Jurisdiction	Eastern Div. Sup't. Office		Central Div. Sup't. Office		Western Div. Sup't. Office		Kyushu Div. Sup't. Office		Hokkaido Div. Sup't. Office		Yanagu Branch		Grand total		Inc. or dec. (△) against preceding year
		Number	Tonnage	Number	Tonnage	Number	Tonnage	Number	Tonnage	Number	Tonnage	Number	Tonnage	Number	Tonnage	
			ton		*ton*		*ton*		*ton*		*ton*		*ton*		*ton*	
Tank engines	4-wheel coupled ... 4-wheels	—	—	1	9.95	7	140.00	21	468.90	2	44.30	—	—	31	663.15	1
	6-wheels	—	—	5	105.00	5	123.80	—	—	—	—	1	33.00	11	251.80	△ 4
	8-wheels	66	2,331.19	54	1,802.73	107	3,788.21	9	289.05	1	34.50	23	796.10	260	9,041.78	—
	Total	66	2,331.19	60	1,917.68	119	4,052.01	30	757.95	3	78.80	24	819.10	302	9,956.73	△ 3
	6-wheel coupled ... 6-wheels	59	2,138.79	51	1,704.64	37	1,099.75	41	1,314.38	13	428.27	4	129.90	205	6,815.73	△ 6
	8-wheels	127	6,124.90	272	13,164.80	49	2,220.13	41	1,883.60	39	1,882.60	—	—	528	25,276.03	△ 10
	10-wheels	36	1,945.10	14	615.55	40	1,728.09	54	2,439.54	8	315.81	—	—	152	7,044.09	6
	12-wheels	4	215.72	2	116.65	9	509.28	—	—	—	—	—	—	15	841.65	2
	Total	226	10,424.51	339	15,601.64	135	5,557.25	136	5,637.52	60	2,626.68	4	129.90	900	39,977.50	△ 8
	8-wheel coupled ... 8-wheels	—	—	—	—	—	—	3	120.54	2	78.58	—	—	5	199.12	—
	Abt. 6-wheel coupled ... 6-wheels	7	260.75	—	—	—	—	—	—	—	—	—	—	7	260.75	—
	8-wheels	2	107.20	—	—	—	—	—	—	—	—	—	—	2	107.20	—
	10-wheels	16	913.60	—	—	—	—	—	—	—	—	—	—	16	913.60	—
	Total	25	1,281.55	—	—	—	—	—	—	—	—	—	—	25	1,281.55	—
	Mallet coupled 4-wheel coupled	—	—	2	85.45	—	—	—	—	—	—	—	—	2	85.45	—
	Total	371	14,037.25	401	17,604.77	254	9,609.26	169	6,516.01	65	2,784.06	28	949.00	1,234	51,500.35	△ 11
Tender engines	4-wheel coupled ... 6-wheels	—	—	2	84.80	—	—	—	—	—	—	—	—	2	84.80	—
	8-wheels	148	8,023.06	164	8,756.61	175	9,516.65	36	2,076.96	16	994.40	—	—	539	29,367.68	15
	10-wheels	24	1,715.65	—	—	—	—	—	—	—	—	—	—	24	1,715.65	—
	Total	172	9,738.71	166	8,841.41	175	9,516.65	36	2,076.96	16	994.40	—	—	565	31,168.13	15
	6-wheel coupled ... 6-wheels	—	—	3	113.55	1	37.85	—	—	4	105.84	—	—	8	257.24	—
	8-wheels	44	2,773.62	12	732.00	60	3,617.42	73	4,553.61	89	4,565.33	—	—	278	16,241.98	—
	10-wheels	3	253.65	21	1,825.23	12	962.40	—	—	—	—	—	—	36	3,041.28	36
	12-wheels	—	—	12	1,206.60	12	1,206.60	—	—	—	—	—	—	24	2,413.20	24
	Total	47	3,027.27	48	3,877.38	85	5,824.27	73	4,553.61	93	4,671.17	—	—	346	21,953.70	60
	8-wheel coupled ... 10-wheels	50	3,923.92	7	495.46	—	—	15	985.05	58	3,814.38	—	—	130	9,218.81	—
	12-wheels	20	1,606.30	—	—	—	—	—	—	—	—	—	—	20	1,606.30	—
	Total	70	5,530.22	7	495.46	—	—	15	985.05	58	3,814.38	—	—	150	10,825.11	—
	Total	289	18,296.20	221	13,214.25	260	15,340.92	124	7,615.62	167	9,479.95	—	—	1,061	63,946.94	75
	6-wheel coupled mortor car	10	425.00	—	—	—	—	—	—	—	—	—	—	10	425.00	10
	Grand total	616	32,758.45	622	30,819.02	514	24,950.18	293	14,131.63	232	12,264.01	28	949.00	2,305	115,872.29	74
	Ratio per open mileage	4.5	—	5.7	—	4.7	—	4.9	—	3.0	—	2.0	—	4.6	—	—

N. B.—The above table includes hired locos, but not the leased.
5 6-wheel coupled 10 wheeled tanks hired from the Yokohama Railway Co. are included in the returns of the Central Superintendent Office.
Of the 6 leased locos, 5 (3 6-wheel coupled 10 wheeled tanks and 2 4-wheel coupled 8-wheeled tanks) are leased to the Government of Karafuto (Sagalien), and one (4-wheel coupled 8 wheeled tenders) to the Tobu Railway Co.

TABLE

PASSENGER CARRIAGES AT THE

Item \ Jurisdiction	Eastern Divisional Superintendent Office								
	6-wheel bogie			4-wheel bogie			4-wheel		
	No.	Seats	Capacity	No.	Seats	Capacity	No.	Seats	Capacity
			c. ft.			*c. ft.*			*c. ft.*
Inspection car	—	—	—	—	—	—	—	—	—
Service car	—	—	—	—	—	—	—	—	—
Private car	—	—	—	1	20	—	1	15	—
Sleeping car	—	—	—	—	—	—	—	—	—
1st class sleeping with smoking room	—	—	—	—	—	—	—	—	—
1st class sleeping with private room	—	—	—	—	—	—	—	—	—
1st class sleeping and dining	—	—	—	—	—	—	—	—	—
2nd class with 1st class sleeping	8	266	—	—	—	—	—	—	—
2nd class with 1st class sleeping and vender's van	—	—	—	6	222	—	—	—	—
Dining	—	—	—	—	—	—	—	—	—
Dining with private room	—	—	—	—	—	—	—	—	—
Dining with smoking room	—	—	—	—	—	—	—	—	—
Dining (for 3rd class)	—	—	—	—	—	—	—	—	—
1st class dining	—	—	—	—	—	—	—	—	—
3rd class dining	—	—	—	—	—	—	—	—	—
1st class	—	—	—	—	—	—	19	388	—
1st class with private room	—	—	—	—	—	—	—	—	—
1st class with hand brake	—	—	—	—	—	—	—	—	—
1st and 2nd class composite	—	—	—	19	892	—	40	970	—
1st and 2nd class composite with private room	—	—	—	—	—	—	—	—	—
1st and 2nd class composite with hand brake	—	—	—	—	—	—	—	—	—
1st and 3rd class composite	—	—	—	—	—	—	—	—	—
2nd class	—	—	—	2	120	—	127	3,401	—
2nd class sleeping	—	—	—	—	—	—	—	—	—
2nd class dining	7	98	—	—	—	—	—	—	—
2nd class dining with smoking room	—	—	—	—	—	—	—	—	—
2nd class brake van	—	—	—	5	270	—	—	—	—
2nd class with hand brake	—	—	—	—	—	—	—	—	—
2nd class with vender's room	—	—	—	—	—	—	—	—	—
2nd and 3rd class composite	—	—	—	—	—	—	23	880	—
2nd and 3rd class composite with hand brake	—	—	—	—	—	—	1	38	—
2nd and 3rd class brake van	3	144	—	11	627	—	1	37	—
2nd and 3rd class luggage and brake van	—	—	—	—	—	—	—	—	—
Electric car with luggage room	—	—	—	—	—	—	—	—	—
Electric car	—	—	—	—	—	—	—	—	—
Steam motor car	—	—	—	—	—	—	—	—	—
3rd class	—	—	—	18	1,440	—	381	18,416	—
3rd class brake van	—	—	—	102	7,327	—	286	13,358	—
3rd class with hand brake	—	—	—	—	—	—	31	1,528	—
3rd class postal van	—	—	—	—	—	—	5	126	1,532
3rd class postal hand brake	—	—	—	—	—	—	3	78	955
3rd class postal and brake van	—	—	—	8	264	8,280	3	38	1,384
3rd class postal, luggage and brake van	—	—	—	—	—	—	—	—	—
3rd class luggage and brake van	—	—	—	—	—	—	3	70	1,251
Postal van	—	—	—	—	—	—	14	—	10,935
Postal and brake van	3	—	6,072	7	—	14,922	14	—	9,898
Postal car with hand brake	—	—	—	—	—	—	—	—	—
Postal, luggage and brake van	—	—	—	4	—	6,176	89	—	73,326
Luggage and brake van	—	—	—	16	—	30,201	113	—	93,650
Storage battery car	—	—	—	—	—	—	—	—	—
Total	21	508	6,072	199	11,182	59,579	1,154	39,343	192,931
Ratio per 10 open mileage	—	—	—	—	—	—	—	—	—
Seats classified — 1st class	—	144	—	—	394	—	—	845	—
Seats classified — 2nd class	—	280	—	—	1,426	—	—	4,312	—
Seats classified — 3rd class	—	84	—	—	9,362	—	—	34,186	—
Carriage room classified — Postal room	—	—	6,072	—	—	26,002	—	—	60,785
Carriage room classified — Luggage room	—	—	—	—	—	33,577	—	—	132,146

NO. IX.

END OF THE YEAR.

Central Divisional Superintendent Office														
Total			6-wheel bogie			4-wheel bogie			4-wheel			Total		
No.	Seats	Capacity	No.	Seats	Capacity	No.	Seats	Capacity	No.	Seats	Capacity	No.	Seats	Capacity
		c. ft.			*c. ft.*			*c. ft.*			*c. ft.*			*c. ft.*
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	3	30	—	3	30	—
2	35	—	3	24	—	1	20	—	—	—	—	4	44	—
—	—	—	6	—	—	2	—	—	—	—	—	8	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	5	120	—	—	—	—	—	—	—	5	120	—
8	266	—	—	—	—	—	—	—	—	—	—	—	—	—
6	222	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	3	—	—	—	—	—	3	—	—
—	—	—	3	—	—	—	—	—	—	—	—	3	—	—
—	—	—	3	—	—	3	—	—	—	—	—	6	—	—
—	—	—	3	—	—	—	—	—	—	—	—	3	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	3	72	—	—	—	—	3	72	—
19	388	—	7	382	—	—	—	—	19	380	—	26	762	—
—	—	—	3	144	—	—	—	—	—	—	—	3	144	—
—	—	—	—	—	—	—	—	—	1	18	—	1	18	—
59	1,862	—	8	444	—	37	1,837	—	43	978	—	88	3,259	—
—	—	—	3	166	—	—	—	—	—	—	—	3	166	—
—	—	—	—	—	—	—	—	—	2	48	—	2	48	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
129	3,521	—	8	500	—	22	1,252	—	143	3,776	—	173	5,528	—
—	—	—	8	398	—	—	—	—	—	—	—	8	398	—
7	98	—	3	69	—	—	—	—	—	—	—	3	69	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
5	270	—	8	503	—	8	420	—	—	—	—	16	923	—
—	—	—	—	—	—	—	—	—	2	48	—	2	48	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
23	880	—	4	344	—	14	998	—	5	198	—	23	1,540	—
1	38	—	—	—	—	2	140	—	2	88	—	4	228	—
15	808	—	—	—	—	1	62	—	1	30	—	2	92	—
—	—	—	—	—	—	4	140	2,688	—	—	—	4	140	2,688
—	—	—	—	—	—	—	—	—	3	78	1,500	3	78	1,500
—	—	—	—	—	—	30	2,800	—	33	1,719	—	63	4,519	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
399	19,856	—	16	1,408	—	99	8,284	—	371	18,170	—	486	27,862	—
388	20,685	—	7	588	—	53	3,970	—	192	9,113	—	252	13,671	—
31	1,528	—	—	—	—	—	—	—	78	3,764	—	78	3,764	—
5	126	1,532	—	—	—	—	—	—	3	84	995	3	84	995
3	78	955	—	—	—	—	—	—	6	164	2,133	6	164	2,133
11	302	9,664	—	—	—	—	—	—	8	178	2,719	8	178	2,719
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3	70	1,251	4	224	3,193	24	984	21,206	20	413	9,020	48	1,621	33,419
14	—	10,935	—	—	—	—	—	—	27	—	20,352	27	—	20,352
24	—	30,892	—	—	—	10	—	19,971	—	—	—	10	—	19,971
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
93	—	79,502	3	—	7,527	9	—	16,090	28	—	26,754	40	—	50,371
129	—	123,851	3	—	6,735	14	—	26,957	130	—	106,798	147	—	140,490
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1,374	51,033	258,582	108	5,314	17,455	339	20,979	86,912	1,120	39,277	170,271	1,567	65,570	274,638
10.1	—	—	—	—	—	—	—	—	—	—	—	14.5	—	—
—	1,383	—	—	946	—	—	665	—	—	840	—	—	2,451	—
—	6,018	—	—	1,964	—	—	3,325	—	—	4,540	—	—	982	—
—	43,632	—	—	2,404	—	—	16,989	—	—	33,897	—	—	5,329	—
—	—	92,859	—	—	3,285	—	—	27,682	—	—	42,613	—	—	73,580
—	—	165,723	—	—	14,170	—	—	59,230	—	—	127,658	—	—	201,058

PASSENGER CARRIAGES AT THE

Jurisdiction / Item	Western Divisional Superintendent Office								
	6-wheel bogie			4-wheel bogie			4-wheel		
	No.	Seats	Capacity	No.	Seats	Capacity	No.	Seats	Capacity
			c. ft.			*c. ft.*			*c. ft.*
Inspection car	—	—	—	—	—	—	2	—	—
Service car	—	—	—	—	—	—	2	20	—
Private car	—	—	—	1	20	—	2	26	—
Sleeping car	1	—	—	2	—	—	—	—	—
1st class sleeping with smoking room	4	126	—	—	—	—	—	—	—
1st class sleeping with private room	5	170	—	—	—	—	—	—	—
1st class sleeping and dining	9	216	—	—	—	—	—	—	—
2nd class with 1st class sleeping	—	—	—	—	—	—	—	—	—
2nd class with 1st class sleeping and vender's van	—	—	—	—	—	—	—	—	—
Dining	—	—	—	1	—	—	—	—	—
Dining with private room	—	—	—	—	—	—	—	—	—
Dining with smoking room	—	—	—	—	—	—	—	—	—
Dining (for 3rd class)	—	—	—	1	—	—	—	—	—
1st class dining	3	78	—	—	—	—	—	—	—
3rd class dining	—	—	—	—	—	—	—	—	—
1st class	—	—	—	—	—	—	42	818	—
1st class with private room	—	—	—	—	—	—	—	—	—
1st class with hand brake	—	—	—	—	—	—	—	—	—
1st and 2nd class composite	11	611	—	53	2,730	—	97	2,362	—
1st and 2nd class composite with private room	1	56	—	—	—	—	—	—	—
1st and 2nd class composite with hand brake	—	—	—	—	—	—	—	—	—
1st and 3rd class composite	—	—	—	3	229	—	—	—	—
2nd class	15	988	—	5	288	—	129	3,474	—
2nd class sleeping	13	676	—	—	—	—	—	—	—
2nd class dining	4	44	—	—	—	—	—	—	—
2nd class dining with smoking room	5	90	—	—	—	—	—	—	—
2nd class brake van	2	125	—	4	204	—	—	—	—
2nd class with hand brake	—	—	—	—	—	—	—	—	—
2nd class with vender's room	—	—	—	3	156	—	—	—	—
2nd and 3rd class composite	7	462	—	24	1,609	—	16	417	—
2nd and 3rd class composite with hand brake	2	136	—	—	—	—	—	—	—
2nd and 3rd class brake van	3	204	—	—	—	—	—	—	—
2nd and 3rd class luggage and brake van	—	—	—	—	—	—	—	—	—
Electric car with luggage room	—	—	—	—	—	—	—	—	—
Electric car	—	—	—	—	—	—	—	—	—
Steam motor car	—	—	—	2	72	—	—	—	—
3rd class	34	2,687	—	135	11,809	—	602	29,574	—
3rd class brake van	16	1,193	—	34	2,681	—	69	3,236	—
3rd class with hand brake	4	296	—	7	623	—	30	1,499	—
3rd class postal van	—	—	—	—	—	—	8	197	2,907
3rd class postal hand brake	—	—	—	—	—	—	6	150	2,322
grd class postal and brake van	1	53	881	11	742	11,280	9	140	3,627
3rd class postal, luggage and brake van	—	—	—	13	359	18,499	5	72	4,433
3rd class luggage and brake van	9	432	8,862	39	1,673	39,791	124	2,405	63,053
Postal van	—	—	—	—	—	—	3	—	2,054
Postal and brake van	6	—	13,112	5	—	10,960	3	—	2,613
Postal van with hand brake	—	—	7,005	3	—	7,047	—	—	—
Postal, luggage and brake van	—	—	—	3	—	4,814	48	—	40,374
Lnggage and brake van	13	—	31,454	9	—	17,791	87	—	72.509
Storage battery car	—	—	—	—	—	—	37	—	—
Total	171	8,643	61,314	358	23,195	110,182	1,321	44,390	193,892
Ratio per 10 open mileage	—	—	—	—	—	—	—	—	—
Seats classified — 1st class	—	863	—	—	1,013	—	—	1,812	—
Seats classified — 2nd class	—	2,729	—	—	2,991	—	—	4,914	—
Seats classified — 3rd class	—	5,051	—	—	19,191	—	—	37,664	—
Seating capacity classified — Postal room	—	—	20,998	—	—	40,159	—	—	35,361
Seating capacity classified — Luggage room	—	—	40,316	—	—	70,023	—	—	158,531

END OF THE YEAR.—*Continued.*

Kyushu Divisional Superintendent Office.

Total			6-wheel bogie			4-wheel bogie			4-wheel			Total		
No.	Seats	Capacity	No.	Seats	Capacity	No.	Seats	Capacity	No.	Seats	Capacity	No.	Seats	Capacity
		c. ft			*c. ft.*			*c. ft*			*c. ft.*			*c. ft.*
2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2	20	—	—	—	—	—	—	—	—	—	—	—	—	—
3	46	—	1	23	—	—	—	—	—	—	—	1	23	—
3	—	—	1	—	—	—	—	—	—	—	—	1	—	—
4	126	—	—	—	—	—	—	—	—	—	—	—	—	—
5	170	—	—	—	—	—	—	—	—	—	—	—	—	—
9	216	—	6	144	—	—	—	—	—	—	—	6	144	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1	—	—	1	—	—	—	—	—	—	—	—	1	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3	78	—	5	120	—	6	120	—	—	—	—	11	240	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
42	818	—	—	—	—	—	—	—	9	182	—	9	182	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	1	38	—	—	—	—	—	—	—	1	38	—
161	5,703	—	—	—	—	16	755	—	36	882	—	52	1,637	—
1	56	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	3	132	—	—	—	—	3	132	—
3	229	—	—	—	—	—	—	—	—	—	—	—	—	—
149	4,750	—	—	—	—	5	260	—	20	530	—	25	790	—
13	676	—	—	—	—	—	—	—	—	—	—	—	—	—
4	44	—	—	—	—	—	—	—	—	—	—	—	—	—
5	90	—	—	—	—	—	—	—	—	—	—	—	—	—
6	329	—	—	—	—	6	300	—	—	—	—	6	300	—
—	—	—	1	50	—	15	750	—	—	—	—	16	800	—
3	156	—	—	—	—	—	—	—	—	—	—	—	—	—
47	2,488	—	—	—	—	7	444	—	11	389	—	18	833	—
2	136	—	—	—	—	—	—	—	4	146	—	4	146	—
3	204	—	—	—	—	6	364	—	—	—	—	6	364	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2	72	—	—	—	—	2	132	—	—	—	—	2	132	—
771	44,070	—	—	—	—	53	4,346	—	148	6,930	—	201	11,276	—
119	7,110	—	—	—	—	45	3,440	—	92	4,076	—	137	7,516	—
41	2,418	—	—	—	—	—	—	—	20	846	—	20	846	—
8	197	2,907	—	—	—	—	—	—	—	—	—	—	—	—
6	156	2,322	—	—	—	—	—	—	—	—	—	—	—	—
21	935	15,788	—	—	—	—	—	—	—	—	—	—	—	—
18	431	22,932	—	—	—	—	—	—	—	—	—	—	—	—
172	4,510	11,706	—	—	—	13	496	13,260	4	40	2,836	17	536	16,096
3	—	2,054	—	—	—	2	—	4,236	5	—	4,690	7	—	8,926
14	—	26,685	—	—	—	—	—	—	—	—	—	—	—	—
6	—	14,052	—	—	—	—	—	—	4	—	3,828	4	—	3,828
51	—	45,188	—	—	—	20	—	38,682	28	—	23,948	48	—	62,630
109	—	121,754	—	—	—	4	—	8,332	24	—	21,119	28	—	29,451
37	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1,850	76,228	365,388	16	375	—	203	11,539	64,510	405	14,021	56,421	624	25,935	120,931
17.1	—	—	—	—	—	—	—	—	—	—	—	10.5	—	—
—	3,688	—	—	325	—	—	503	—	—	546	—	—	1,374	—
—	10,634	—	—	50	—	—	2,162	—	—	1,272	—	—	3,484	—
—	61,906	—	—	—	—	—	8,874	—	—	12,203	—	—	21,077	—
—	—	96,518	—	—	—	—	—	23,199	—	—	19,372	—	—	42,571
—	—	268,870	—	—	—	—	—	41,311	—	—	37,049	—	—	78,360

PASSENGER CARRIAGE AT THE

Item \ Jurisdiction	Hokkaido Divisional Superintendent Office											
	6-wheel bogie			4-wheel bogie			4-wheel			Total		
	No.	Seats	Capacity	No.	Seats	Capacity	No.	Seats	Capacity	No.	Seats	Capacity
			c. ft.			c. ft.			c. ft.			c. ft.
Inspection car	—	—	—	—	—	—	—	—	—	—	—	—
Service car	—	—	—	—	—	—	—	—	—	—	—	—
Private car	—	—	—	2	43	—	—	—	—	2	43	—
Sleeping car	—	—	—	—	—	—	—	—	—	—	—	—
1st class sleeping with smoking room	—	—	—	—	—	—	—	—	—	—	—	—
1st class sleeping with private room	—	—	—	—	—	—	—	—	—	—	—	—
1st class sleeping and dining	—	—	—	—	—	—	—	—	—	—	—	—
2nd class with 1st class sleeping	4	208	—	—	—	—	—	—	—	4	208	—
2nd class with 1st class sleeping and vender's van	—	—	—	—	—	—	—	—	—	—	—	—
Dining	—	—	—	—	—	—	—	—	—	—	—	—
Dining with private room	—	—	—	—	—	—	—	—	—	—	—	—
Dining with smoking room	—	—	—	—	—	—	—	—	—	—	—	—
Dining (for 3rd class)	—	—	—	—	—	—	—	—	—	—	—	—
1st class dining	—	—	—	—	—	—	—	—	—	—	—	—
3rd class dining	—	—	—	—	—	—	—	—	—	—	—	—
1st class	—	—	—	—	—	—	2	40	—	2	40	—
1st class with private room	—	—	—	—	—	—	—	—	—	—	—	—
1st class with hand brake	—	—	—	2	58	—	—	—	—	2	58	—
1st and 2nd class composite	—	—	—	—	—	—	—	—	—	—	—	—
1st and 2nd class composite with private room	—	—	—	—	—	—	—	—	—	—	—	—
1st and 2nd class composite with hand brake	—	—	—	13	497	—	2	32	—	15	529	—
1st and 3rd class composite	—	—	—	—	—	—	—	—	—	—	—	—
2nd class	—	—	—	—	—	—	3	60	—	3	60	—
2nd class sleeping	—	—	—	—	—	—	—	—	—	—	—	—
2nd class dining	—	—	—	—	—	—	—	—	—	—	—	—
2nd class dining with smoking room	—	—	—	—	—	—	—	—	—	—	—	—
2nd class brake van	—	—	—	—	—	—	—	—	—	—	—	—
2nd class with hand brake	—	—	—	13	504	—	4	92	—	17	596	—
2nd class with vender's room	—	—	—	—	—	—	—	—	—	—	—	—
2nd and 3rd class composite	—	—	—	—	—	—	—	—	—	—	—	—
2nd and 3rd class composite with hand brake	—	—	—	33	1,961	—	6	156	—	39	2,117	—
2nd and 3rd class brake van	—	—	—	—	—	—	—	—	—	—	—	—
2nd and 3rd class luggage and brake van	—	—	—	—	—	—	—	—	—	—	—	—
Electric car with luggage room	—	—	—	—	—	—	—	—	—	—	—	—
Electric car	—	—	—	—	—	—	—	—	—	—	—	—
Steam motor car	—	—	—	—	—	—	—	—	—	—	—	—
3rd class	—	—	—	6	480	—	—	—	—	6	480	—
3rd class brake van	—	—	—	3	155	—	—	—	—	3	150	—
3rd class with hand brake	—	—	—	76	5,182	—	50	1,908	—	126	7,090	—
3rd class postal van	—	—	—	—	—	—	—	—	—	—	—	—
3rd class postal hand brake	—	—	—	7	174	3,608	—	—	—	7	174	3,608
3rd class postal and brake van	—	—	—	—	—	—	—	—	—	—	—	—
3rd class postal, luggage and brake van	—	—	—	—	—	—	—	—	—	—	—	—
3rd class luggage and brake van	—	—	—	9	318	4,091	—	—	—	9	318	4,091
Postal van	—	—	—	—	—	—	3	—	2,109	3	—	2,109
Postal and brake van	—	—	—	—	—	—	—	—	—	—	—	—
Pastal van with hand brake	—	—	—	1	—	971	13	—	8,134	14	—	9,105
Postal, luggage and brake van	—	—	—	11	—	19,013	5	—	3,586	16	—	22,599
Luggage and brake van	—	—	—	5	—	3,340	45	—	34,785	50	—	38,125
Storage battery car	—	—	—	—	—	—	—	—	—	—	—	—
Total	4	208	—	181	9,367	31,023	133	2,288	48,614	313	11,863	79,637
Ratio per 10 open mileage	—	—	—	—	—	—	—	—	—	4.0	—	—
Seats classified — 1st class	—	72	—	—	306	—	—	52	—	—	430	—
Seats classified — 2nd class	—	136	—	—	1,399	—	—	232	—	—	1,767	—
Seats classified — 3rd class	—	—	—	—	7,662	—	—	2,004	—	—	9,666	—
Seating capacity classified — Postal room	—	—	—	—	—	16,402	—	—	11,825	—	—	28,227
Seating capacity classified — Luggage room	—	—	—	—	—	14,621	—	—	36,789	—	—	51,410

N.B.—The above table includes hired cars, but not Imperial cars or leased cars.

Of 6 Imperial cars, 5 (2 6-wheel bogies, 24-wheel bogies and one 4-wheel) are in the charge of the

Of 32 hired cars, 13 (10 4-wheel 3rd cl. hired from the Narita Railway and 3 6-wheel bogie postal and 16 (2 4-wheel 2nd and 3rd cl. composite bogies with hand brake hired from the Yokohama Railway, 6 3rd cl. with hand brake, 3 4-wheel 3rd cl. and luggage brake van composite) in the Central, and 3 (6-wheel

16 cars in charge of the Hokkaido Superintendent Office (2 4-wheel 2nd cl., 8 4-wheel 3rd cl. with and 3rd cl. with luggage brake vans) are leased to the Government of Karafuto).

3 of 143 2nd cl. 4-wheels in the charge of the Central Office are subsidiary electric cars.

END OF THE YEAR.—*Continued.*

Yonago Branch Office			Grand Total											Inc. or dec. (△) against preceding year
4-wheel			4-wheel bogie			6-wheel bogie			4-wheel			Total			
No.	Seats	Capacity	No.	Seats	Capacity	No.	Seats	Capacity	No.	Seats	Capacity	No.	Seats	Capacity	
		c. ft.			*c. ft.*			*c. ft.*			*c. ft.*			*c. ft.*	
—	—	—	—	—	—	—	—	—	3	—	—	2	—	—	—
—	—	—	—	—	—	—	—	—	5	50	—	5	50	—	△ 1
—	—	—	4	47	—	5	103	—	3	41	—	12	191	—	4
—	—	—	8	—	—	4	—	—	—	—	—	12	—	—	—
—	—	—	4	126	—	—	—	—			—	4	126	—	—
—	—	—	5	170	—	—	—	—	—	—	—	5	170	—	5
—	—	—	20	480	—	—	—	—	—	—	—	20	480	—	—
—	—	—	12	474	—	—	—	—	—	—	—	12	474	—	4
—	—	—	—	—	—	6	322	—	—	—	—	6	222	—	—
—	—	—	1	—	—	4	—	—	—	—	—	5	—	—	—
—	—	—	3	—	—	—	—	—	—	—	—	3	—	—	3
—	—	—	3	—	—	3	—	—	—	—	—	6	—	—	6
—	—	—	3	—	—	1	—	—	—	—	—	4	—	—	—
—	—	—	8	198	—	6	120	—	—	—	—	14	318	—	—
—	—	—	—	—	—	3	72	—	—	—	—	3	72	—	—
2	38	—	7	382	—	—	—	—	93	1,846	—	100	2,228	—	△ 1
—	—	—	3	144	—	—	—	—	—	—	—	3	144	—	—
—	—	—	1	38	—	2	58	—	1	18	—	4	114	—	—
—	—	—	19	1,055	—	125	6,214	—	2 6	5,192	—	360	12,461	—	42
—	—	—	4	222	—	—	—	—	—	—	—	4	222	—	—
—	—	—	—	—	—	16	629	—	4	80	—	20	709	—	1
—	—	—	—	—	—	3	229	—	—	—	—	3	229	—	—
20	574	—	23	1,488	—	34	1,920	—	442	11,815	—	499	15,223	—	12
—	—	—	21	1,074	—	—	—	—	—	—	—	21	1,074	—	10
—	—	—	14	211	—	—	—	—	—	—	—	14	211	—	—
—	—	—	5	90	—	—	—	—	—	—	—	5	90	—	5
—	—	—	10	628	—	23	1,194	—	—	—	—	33	1,822	—	5
—	—	—	1	50	—	28	1,254	—	6	140	—	35	1,444	—	3
—	—	—	—	—	—	3	156	—	—	—	—	3	156	—	—
3	120	—	11	806	—	45	3,051	—	58	2,004	—	114	5,861	—	△ 10
2	84	—	2	136	—	35	2,101	—	15	512	—	52	2,749	—	8
—	—	—	6	348	—	18	1,053	—	2	67	—	26	1,468	—	3
1	22	362	—	—	—	4	140	2,688	1	22	362	5	162	3,050	1
—	—	—	—	—	—	—	—	—	3	78	1,500	3	78	1,500	—
—	—	—	—	—	—	30	2,800	—	33	1,719	—	63	4,519	—	22
—	—	—	—	—	—	4	204	—	—	—	—	4	204	—	—
88	4,400	—	50	4,095	—	311	26 359	—	1,590	77,490	—	1,951	107,944	—	△ 133
—	—	—	23	1,781	—	237	17,568	—	639	29,783	—	899	49,132	—	311
2	100	—	4	296	—	83	5,805	—	211	9,645	—	298	15,746	—	△ 113
6	156	1,860	—	—	—	—	—	—	22	563	7,294	22	563	7,294	△ 3
4	120	1,391	—	—	—	7	174	3,608	19	512	6,801	26	686	10,409	7
—	—	—	1	53	881	19	1,006	19,560	20	356	7,730	40	1,415	28,171	—
—	—	—	—	—	—	13	359	18,499	5	72	4,433	18	431	22,932	△ 1
1	30	362	13	656	12,055	85	3,471	78,348	152	2,958	76,522	250	7,085	166,925	18
—	—	—	—	—	—	2	—	4,236	52	—	40,410	54	—	44,376	3
—	—	—	9	—	19,184	22	—	45,853	17	—	12,511	48	—	77,548	7
—	—	—	3	—	7,005	4	—	8,018	17	—	11,962	24	—	26,985	△ 4
—	—	—	3	—	7,527	47	—	84,775	198	—	167,988	248	—	260,290	12
25	—	17,108	16	—	38,189	48	—	86,921	424	—	345,969	488	—	470,779	3
—	—	—	—	—	—	—	—	—	37	—	—	37	—	—	—
154	5,644	21,083	320	15,048	84,841	1,280	76,262	352,206	4,287	144,963	683,212	5,887	236,273	1,120,259	299
—	—	—	—	—	—	—	—	—	—	—	—	11.7	—	—	—
—	38	—	—	2,350	—	—	2,881	—	—	4,133	—	—	9,364	—	—
—	650	—	—	5,159	—	—	11,303	—	—	15,920	—	—	32,382	—	—
—	4,956	—	—	7,539	—	—	62,078	—	—	124,910	—	—	194,527	—	—
—	—	3,251	—	—	30,355	—	—	133,444	—	—	173,207	—	—	337,006	—
—	—	17,832	—	—	54,486	—	—	218,762	—	—	510,005	—	—	783,253	—

Central, and one. 4-wheel of the Kyushu Superintendent Office.
vans hired from the Communication Bureau) are included in the returns of the Eastern Superintendent Office
4-wheel 3rd cl. bogies with hand brake, 2 4-wheel 1st and 2nd cl. composite with hand brake, 3 4-wheel
bogie postal brake vans hired from the Communication Bureau) in the Western Superintendent Office.
hand brake, 3 4-wheel 1st and 2nd and 3rd cl. composite bogies with hand brake, 3 4-wheel 1st and 2nd

TABLE

GOODS WAGONS AT THE

Jurisdiction	Kind / Capacity		Covered															Total
			4-wheel bogie		6-wheel	4-wheel												
			Wagons	Brake vans	Do. with toothed wheel	Wagons	Do. with hand brake	Brake vans	Iron trucks	Cattle truck	Fish vans	Oil trucks	Refrigerator cars	Limestone trucks	Furniture vans	Horse vans		
Eastern, Central and Western Div. Supt. Offices	No ton		—	—	—	—	—	—	—	—	—	—	—	—	—	10		10
	3 ton		—	—	—	—	—	2	—	—	—	—	—	—	—	—		2
	4 ton		—	—	—	1	—	82	—	—	—	—	—	—	—	—		83
	5 ton		—	—	—	146	—	191	22	1	—	3	—	—	—	—		363
	6 ton		—	—	2	1,555	—	1,491	71	19	54	5	10	—	—	—		3,207
	7 ton		—	—	13	8,440	73	195	100	185	56	30	—	—	4	—		9,096
	8 ton		—	—	—	587	—	116	35	—	—	6	140	—	—	—		884
	9 ton		—	—	—	810	—	355	86	—	—	—	—	—	—	—		1,251
	10 ton		—	—	—	194	—	20	109	—	—	—	—	—	—	—		323
	15 ton		—	7	—	—	—	—	—	—	—	—	—	—	—	—		7
	17 ton		—	—	—	—	—	—	—	—	—	—	—	—	—	—		—
	18 ton		—	—	—	—	—	—	—	—	—	—	—	—	—	—		—
	20 ton		—	—	—	—	—	—	—	—	—	—	—	—	—	—		—
	22 ton		—	—	—	—	—	—	—	—	—	—	—	—	—	—		—
	24 ton		—	—	—	—	—	—	—	—	—	—	—	—	—	—		—
	25 ton		5	—	—	—	—	—	—	—	—	—	—	—	—	—		5
	Total	*No.*	5	7	15	11,733	73	2,452	423	205	110	44	150	—	4	10		15,231
																	(20)	(20)
		ton	125	105	103	83,070	511	15,923	3,380	1,414	716	303	1,180	—	28	—		106,858
Kyushu Div. Supt. Office	6 ton		—	—	—	—	—	—	—	—	1	—	—	—	—	—		1
	7 ton		—	—	—	—	—	—	4	—	3	—	—	16	—	—		23
	8 ton		—	—	—	—	—	—	—	—	—	—	30	—	—	—		30
	9 ton		—	—	—	—	—	—	—	—	—	—	—	—	—	—		—
	10 ton		—	—	—	—	—	—	—	—	—	—	—	—	—	—		—
	18 ton		—	—	—	—	—	—	—	—	—	—	—	—	—	—		—
	Total	*No.*	—	—	—	—	—	—	4	—	4	—	30	16	—	—		54
		ton	—	—	—	—	—	—	28	—	27	—	240	112	—	—		407
Hokkaido Div. Supt. Office	No ton		—	—	—	—	—	—	—	—	—	—	—	—	—	—		—
	4 ton		—	21	—	—	—	—	—	—	—	—	—	—	—	—		21
	5 ton		—	48	—	—	—	19	—	—	—	—	—	—	—	—		67
	6 ton		—	5	—	—	—	—	—	—	—	—	—	—	—	—		5
	7 ton		172	—	—	684	—	107	—	—	—	—	—	—	—	—		963
	8 ton		—	—	—	—	—	—	—	—	—	—	—	—	—	—		—
	9 ton		—	—	—	80	—	—	—	—	—	—	—	—	—	—		80
	10 ton		—	—	—	—	—	—	—	—	—	—	—	—	—	—		—
	12 ton		—	—	—	—	—	—	—	—	—	—	—	—	—	—		—
	15 ton		—	—	—	—	—	—	—	—	—	—	—	—	—	—		—
	18 ton		—	—	—	—	—	—	—	—	—	—	—	—	—	—		—
	21 ton		—	—	—	—	—	—	—	—	—	—	—	—	—	—		—
	24 ton		—	—	—	—	—	—	—	—	—	—	—	—	—	—		—
	Total	*No.*	172	74	—	764	—	126	—	—	—	—	—	—	—	—		1,136
		ton	1,204	354	—	5,508	—	844	—	—	—	—	—	—	—	—		7,910
Yonago Branch Office	5 ton		—	—	—	2	—	—	—	1	—	—	—	—	—	—		3
	6 ton		—	—	—	2	—	13	2	—	1	—	—	—	—	—		18
	7 ton		—	—	—	96	—	—	—	2	—	—	—	—	—	—		98
	8 ton		—	—	—	9	—	—	—	—	—	—	—	—	—	—		9
	10 ton		—	—	—	—	—	—	—	—	—	—	—	—	—	—		—
	Total	*No.*	—	—	—	109	—	13	2	3	1	—	—	—	—	—		128
		ton	—	—	—	766	—	78	13	19	6	—	—	—	—	—		881
Grand total		*No.*	177	81	15	12,606	73	2,591	429	208	115	44	180	16	4	10		16,549
																	(20)	(20)
		ton	1,329	459	103	89,344	511	16,845	3,420	1,433	749	303	1,420	112	28	(20)		116,056
Inc. or dec. (△) against preceding year		*No.*	—	—	—	729	△ 486	863	33	—	—	11	150		—	—		1,300

N.B.—The above table includes hired wagons, but not the leased or the privately owned.

104 hired wagons (56 4-wheel bogie covered 7-ton, 8 4-wheel covered 7-ton brake vans, 10 4-wheel the returns of the Eastern, the Central and the Western Superintendent Offices.

Of 50 wagons in charge of the Hokkaido Office (8 4-wheel bogie covered 7-tons, 2 4-wheel covered of Karafuto (Sagalien).

665 privately-owned wagons are excluded from the above returns.

In computing the number of wagons per 10 miles of open line, ballast wagons are left out of account.

Figures in brackets indicate load capacity in terms of heads of cattle.

NO. X.

END OF THE YEAR.

4-wheel bogie			Open											Special vehicle								Grand total	Ratio per ten open mileage
			4-wheel										Total										
Wagons	Timber trucks	Coal trucks	Wagons	Brake vans	Wagons additionally serving as timber trucks	Timber trucks	Coal trucks	Ballast trucks	Emergency ballast trucks	Cokes trucks	Girder trucks	Stone trucks		Construction service cars	Accident cars	Gas holders	Water tanks	Snow plows	Fuel and water trucks	Total		
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11	—	—	—	11	21	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	1	84	—
—	—	—	298	—	—	13	—	310	—	—	—	—	621	13	—	—	—	—	—	13	997	—
—	—	—	1,159	100	—	—	—	273	5	30	—	—	1,567	43	5	—	—	—	—	48	4,822	—
—	—	—	2,819	—	15	179	—	534	—	—	—	—	3,547	239	3	—	—	—	—	242	12,885	—
—	—	—	1,409	—	—	2	—	—	—	—	—	—	1,411	59	1	—	—	—	—	60	2,355	—
—	—	—	3,816	—	—	100	150	—	—	—	—	—	4,066	—	—	—	—	—	—	—	5,317	—
—	4	—	437	—	—	8	—	—	—	—	—	—	449	1	—	—	—	—	—	1	772	—
—	—	—	—	—	—	—	—	—	—	—	6	—	6	—	—	—	—	—	—	—	13	—
—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	1	—
438	—	—	—	—	—	—	—	—	—	—	—	—	438	—	—	—	—	—	—	—	438	—
—	10	—	—	—	—	—	—	—	—	—	—	—	10	—	—	—	—	—	—	—	10	—
—	2	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—	2	—
—	—	1	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	1	—
5	—	—	—	—	—	—	—	—	—	—	—	—	5	—	—	—	—	1	—	—	10	—
443	16	1	9,938	100	15	302	150	1,117	5	30	6	1	12,124	354	10	11	—	—	—	375	27,730 (20)	77.7
8,009	284	24	78,163	600	105	2,314	1,350	6,926	30	180	90	17	98,092	2,468	63	—	—	—	—	2,531	207,481	—
—	—	—	—	—	—	—	717	24	—	—	—	—	741	—	8	—	12	—	—	20	762	—
—	—	—	175	—	—	32	499	—	—	—	—	—	907	90	—	—	—	—	—	90	1,020	—
—	—	—	—	—	—	10	1,333	201	—	—	—	—	1,343	—	—	—	—	—	—	—	1,373	—
—	—	—	—	—	—	—	2,347	—	—	—	—	—	2,347	—	—	—	—	—	—	—	2,347	—
—	10	—	—	—	—	—	—	—	—	—	—	—	10	—	—	—	—	—	—	—	10	—
20	—	—	—	—	—	—	—	—	—	—	—	—	20	—	—	—	—	—	—	—	20	—
20	10	—	175	—	—	42	4,896	225	—	—	—	—	5,368	90	8	—	12	—	—	110	5,532	91.2
360	100	—	1,225	—	—	304	39,582	1,551	—	—	—	—	43,122	630	48	—	72	—	—	750	44,279	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11	3	14	14	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	21	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	67	—
—	—	—	—	—	—	—	—	19	—	—	—	—	19	10	—	—	—	—	—	10	34	—
1,417	14	—	653	—	—	59	—	148	—	—	—	—	2,291	180	—	—	5	—	—	185	3,439	—
—	—	—	—	—	—	—	—	30	—	—	—	—	30	—	1	—	—	—	—	1	31	—
—	—	—	—	—	—	—	—	26	—	—	—	—	26	—	—	—	—	—	—	—	100	—
—	—	—	1	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	1	—
—	—	—	1	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	1	—
86	164	—	—	—	—	—	—	—	—	—	—	—	250	—	—	—	—	—	—	—	250	—
284	—	—	—	—	—	—	—	—	—	—	—	—	284	—	—	—	—	—	—	—	284	—
133	—	—	—	—	—	—	—	—	—	—	—	—	133	—	—	—	—	—	—	—	133	—
—	—	58	—	—	—	—	—	—	—	—	—	—	58	—	—	—	—	—	—	—	58	—
1,920	178	58	655	—	—	59	—	223	—	—	—	—	3,093	190	1	—	5	11	3	210	4,439	54.1
19,114	2,558	1,392	4,593	—	—	413	—	1,624	—	—	—	—	29,694	1,320	8	—	35	—	—	1,363	38,967	—
—	—	—	1	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	1	5	—
—	—	—	12	—	—	—	—	—	—	—	—	—	12	2	—	—	—	—	—	2	32	—
—	—	—	14	—	—	4	—	—	—	—	—	—	18	54	—	—	—	—	—	54	170	—
—	—	—	28	—	—	—	—	—	—	—	—	—	28	1	—	—	—	—	—	1	38	—
—	—	—	6	—	—	—	—	—	—	—	—	—	6	—	—	—	—	—	—	—	6	—
—	—	—	61	—	—	4	—	—	—	—	—	—	65	58	—	—	—	—	—	58	251	14.0
—	—	—	459	—	—	28	—	—	—	—	—	—	487	403	—	—	—	—	—	403	1,771	—
2,383	204	59	10,829	100	15	407	5,046	1,565	5	30	6	1	20,350	292	19	11	17	11	3	753	37,952 (20)	73.9
27,483	2,942	1,416	84,440	600	105	3,059	40,932	10,101	30	180	90	17	171,395	4,821	119	—	107	—	—	5,047	292,498	—
6	64	58	4,225	100	15	148	△ 3,014	179	—	—	—	—	1,781	130	△ 9	—	—	—	—	121	3,202	—

open 7-tons, and 30 7-ton ballast trucks, 104 in all,) are hired from the Yokohama Railway and included in

4-ton brake vans, 35 4-wheel open 7-tons, 5 4-wheel 7-ton timber trucks, 50 in all,) are leased to the Government

TABLE NO. XI.

STEAMSHIPS AT THE END OF THE YEAR.

Name	Service	Port of registry	Gross Tonnage	Net Tonnage	Dimension			Mean draught	Boiler pressure	Passengers				Crew			
					Length	Breadth	Depth			1st class	2nd class	3rd class	Total	Navigation	Engineering	Purser and staff	Total
			ton	*ton*	*shaku*	*shaku*	*shaku*	*ft.*	*lb.*	*No.*	*No.*	*No.*	*No.*	*No.*	*No.*	*No.*	*No.*
Ikimaru	Shimonoseki-Fusan	Tokyo	1,691.78	913.56	270.27	34.78	21.16	12.6	180	18	64	231	313	21	26	28	75
Tsushimamaru	„ „	„	1,679.67	913.50	270.25	34.78	21.16	12.6	180	18	64	239	321	21	26	28	75
Hirafumaru	Aomori-Hakodate	„	1,518.65	820.07	292.00	34.10	20.70	11.6	165	22	52	358	432	23	21	25	69
Tamuramaru	„ „	„	1,518.65	820.07	292.00	34.10	20.70	11.6	165	22	52	358	432	23	21	25	69
Hankakumaru	Maizuru-Sakai	„	775.08	480.55	187.00	26.00	18.10	15.0	190	8	70	510	588	15	13	18	46
Daini-Hankakumaru	„ „	„	864.94	536.26	187.62	27.25	17.70	12.6	190	8	82	666	756	15	13	18	46
Tamamomaru	Mihata-Takamatsu	„	223.50	120.69	120.00	19.50	9.70	7.6	160	17	32	210	259	9	9	4	22
Kojimamaru	Onomichi-Tadotsu	„	223.50	120.69	120.00	19.50	9.70	7.6	160	17	48	255	320	9	9	4	22
Osetomaru	Shimonoseki-Moji	„	189.77	102.47	105.65	24.26	8.18	5.0	160	29	48	258	335	8	8	1	17
Shimonosekimaru	„ „	„	189.52	102.43	105.65	24.26	8.18	5.0	160	29	68	286	383	8	8	1	17
Hashidatemaru	Maizuru-Miyazu	„	58.42	31.54	79.20	13.15	6.95	5.6	120	—	16	39	55	5	5	1	11
Dainі-Hashidatemaru	Maizuru-Miyazu-Obama	„	170.41	105.66	115.30	15.90	11.83	11.6	160	—	24	70	94	9	9	3	21
Daisan-Hashidatemaru	Maizuru-Miyazu	„	168.61	91.05	103.40	17.60	9.22	8.0	160	—	29	100	129	8	8	3	19
Itsukushimamaru	Maizuru-Itsukushima	„	70.44	36.30	78.00	15.80	6.80	5.0	120	—	—	375	375	5	5	1	11
Miyajimamaru	For carrying passegers and towing at Shimonoseki	„	35.83	19.11	59.40	11.60	6.38	4.3	100	—	—	94	94	3	4	—	7
Hosoyemaru	Do.	„	32.86	16.12	57.00	11.50	6.80	6.0	120	—	—	34	34	4	3	—	7
Tsugarumaru	Do. at Aomori	„	44.60	23.75	58.20	12.40	6.70	4.6	120	—	—	55	55	3	3	—	6
Ushiwakamaru	For carrying passengers and towing at Hakodate	„	42.70	19.97	58.70	12.50	6.45	5.3	120	—	10	77	87	3	3	—	6
Aomorimaru	Do.	„	21.71	11.65	43.40	9.75	5.46	4.0	120	—	—	52	52	3	3	—	6
Tamashimamaru	Do. at Shimonoseki	„	33.69	17.62	59.00	11.40	6.60	6.6	120	—	—	78	78	3	4	—	7
Asahimaru	Between Kyobashi-Mihata	„	24.08	13.01	71.10	12.20	2.40	1.6	120	—	—	143	143	3	3	—	6
Odomaru	For carrying passengers and towing at Shimonoseki	„	24.82	10.44	57.90	10.60	5.35	4.1	110	—	—	12	12	3	3	—	6
Bentenmaru	Towing at Hakodate	„	18.00	9.40	48.00	8.75	5.22	4.2	100	—	—	26	26	3	3	—	6
Total	—		9,631.36	5,334.82	—	—	—	—	—	188	659	4,526	5,373	207	210	160	577
Inc. or dec. (−) against preceding year			△ 10.78	△ 5.82	—	—	—	—	—	—	65	610	675	△ 8	△ 10	△ 4	△ 22

STEAMSHIPS AT THE END OF THE YEAR.—*Continued.*

Name	When lunched	Who built	Class	Material of Hull	Deck		Engine		Boiler		Propeller		Form of stem	Form of stem	No. of masts	No. of boats
					No.	Kind	Kind	No.	Kind	No.	Kind	No.				
Ikimaru	Jun. 1905	Mitsubishi dockyard.	Ocean going.	Steel.	2	Awning deck.	T. Compound.	2	S. E.	2	Se.	2	Straight	Elliptical	2	6
Tsushimamaru	„ „	„ „	„ „	„	2	„ „	„ „	2	„	2	„	2	„	„	2	6
Hirafumaru	Jul. 1907	Denny & Co.	Smooth water.	„	2	Shelter „	Turbin	3	„	2	„	3	„	„	2	6
Tamuramaru	Aug. „	„ „ „	„ „	„	2	„ „	„	3	„	2	„	3	„	„	2	6
Hankakumaru	May 1906	Hanta Ryutaro.	Ocean going	„	2	Spar „	T. Compound	1	„	1	„	1	„	„	2	4
Daini-Hankakumaru	Apr. 1908	„ „	„ „	„	2	„ „	„ „	1	„	1	„	1	„	„	2	4
Tamamomaru	Jan. 1903	Mitsubishi dockyard.	Coasting.	„	1	Heavy „	„ „	2	„	1	„	2	„	Circular	—	—
Kojimamaru	„ „	„ „	„	„	1	„ „	„ „	2	„	1	„	2	„	„	—	—
Osetomaru	Feb. 1901	„ „	„	„	1	„ „	„ „	2	„	1	„	2	„	„	—	—
Shimonosekimaru	„ „	„ „	„	„	1	„ „	„ „	2	„	1	„	2	„	„	—	—
Hashidatemaru	Oct 1904	Hanta Ryutaro.	„	Wood.	1	„ „	Comp. Cond.	2	„	1	„	2	„	Elliptical	—	—
Daini-Hashidatemaru	May 1906	Ono Seikichi.	Smooth water.	„	2	Spar. „	T. Compound.	1	„	1	„	1	„	Circular	—	—
Daisan-Hashidatemaru ...	Oct. 1910	Uraga dockyard.	„ „	Steel.	—	Heavy. „	„ „	1	„	1	„	1	„	„	1	2
Itsukushimamaru	„ 1905	Hanta Ryutaro.	Coasting.	„	1	„ „	Comp. Cond.	2	„	2	„	2	„	„	—	2
Miyajimamaru	Mar. 1902	Ono Seikichi.	Smooth water.	„	1	„ „	„ „	1	„	1	„	1	„	„	—	—
Hosoyemaru	Jun. 1905	Hanta Ryutaro.	„ „	„	1	„ „	„ „	1	„	1	„	1	„	Elliptical	—	—
Tsugarumaru	Apr. 1908	Yokohama dockyard.	„ „	„	1	„ „	„ „	1	„	1	„	1	„	„	—	—
Ushiwakamaru	Jul. 1910	Ishikawajima dockyard.	„ „	„	1	„ „	„ „	1	„	1	„	1	„	„	—	—
Aomorimaru	May „	„ „	Coasting	„	1	„ „	„ „	1	„	1	„	1	„	„	—	—
Tamashimamaru	Oct. 1902	Hanta Ryutaro.	„	„	1	„ „	„ „	1	„	1	„	1	„	Circular	—	—
Asahimaru	Jan. 1903	„ „	„	„	1	„ „	Tan. Comp. Con.	2	Vertical.	1	„	4	Raked	Elliptical	—	—
Odomaru	Sep. 1901	Kawasaki dockyard.	„	Wood.	1	„ „	Comp. Cond.	1	S. E.	1	„	1	Straight	Circular	—	—
Bentenmaru	„ 1909	Watanabe Chuyemon.	—	„	—	—	„ „	—	„	—	„	—	„	„	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Inc. or dec.(△) against preceding year	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

The full number of passengers of the Hankakumaru and the Daini Hankakumaru are counted on the basis as regards the Uno-Takamatsu line, the two steamers being now at anchor in the port of Une.

Besides the abovementioned, the following steamers are hired for use:—the Umegakamaru with 3,274.96 tons, the Egesenmaru with 1,462.43 tons, the Sakuramaru with 3,204.70 tons, the Satsumamaru with 1,946.03 tons, the Horaimaru with 53.82 tons, making a total of 5 represeting a tonnage of 9,939.94 tons.

TABLE

PRINCIPAL NEW

Jurisdiction	Item	Rolling stock		Track appliance									Girders and appliances					
		Carriages	Wagons	Signals	Interlockings	Interlockings (single type)	Switches	Crossings	Turntables	Traversers	Buffer stops	Fish-plates	Overbridges	Bridge girders: Plate	Bridge girders: Rolled	Longitudinal girders	Box girders	Viaducts
Eastern Div. Sup't. Office	Omiya Works	15	400	—	—	—	238	264	20	2	231	4,520	—	22	30	—	—	—
	Morioka	—	120	—	—	—	—	—	3	—	8	16	—	—	1	—	—	—
	Tsuchizaki	—	145	—	—	—	—	—	—	—	10	—	—	—	—	—	—	—
	Honjo	—	—	—	—	—	21	18	1	—	—	164	—	—	—	—	—	—
Central Div. Sup't. Office	Shimbashi	36	—	29	—	42	95	102	4	—	177	3,096	—	10	—	—	—	—
	Nagano	—	—	—	—	4	—	—	—	—	12	—	—	—	—	—	—	—
	Kanazawa	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Western Div. Sup't. Office	Kobe	23	185	47	—	277	207	201	—	—	19	6,510	7	—	—	—	—	—
	Takatori	—	—	228	8	230	20	14	3	—	154	3,002	3	128	34	11	6	1
	Shimonoseki	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—
	Minatomachi	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Yokkaichi	—	85	—	—	—	109	110	—	—	—	8	—	—	—	—	—	—
	Tadotsu	—	—	—	—	—	—	—	—	—	—	32	—	—	—	—	—	—
Kyushu Div. Sup't. Office	Kokura	5	—	9	—	19	65	61	1	5	—	532	—	11	1	—	—	—
	Wakamatsu	—	—	—	—	20	125	1	—	—	—	500	—	3	—	—	—	—
	Yukihashi	—	—	10	—	—	86	90	—	3	—	—	—	—	—	—	—	—
Hokkaido Div. Sup't. Office	Asahigawa	17	—	—	—	—	84	157	—	—	—	104	—	—	—	—	—	—
	Iwamizawa	—	—	—	—	—	131	198	1	—	—	1,792	—	—	5	—	—	—
	Temiya	—	—	—	—	35	113	125	1	—	—	2,525	—	—	—	—	—	—
	Sapporo	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Hakodate	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	Eastern Div. Sup't. Office	15	665	—	—	—	259	282	24	2	249	4,700	—	22	31	—	—	—
	Central Div. Sup't. Office	36	—	29	—	46	95	102	4	—	189	3,096	—	10	—	—	—	—
	Western Div. Sup't. Office	23	270	275	8	507	336	325	3	1	173	9,552	10	128	34	11	6	1
	Kyushu Div. Sup't. Office	5	—	19	—	39	276	152	1	8	—	1,032	—	14	1	—	—	—
	Hokkaido Div. Sup't. Office	23	—	—	—	35	328	480	2	—	—	4,421	—	—	5	—		—
Grand total		102	935	323	8	627	1,294	1,341	34	11	611	22,801	10	174	71	11	6	1

N.B.—Telegraph and Telephone apparatus in the Head Office are included in the returns of the

NO. XII.

WORKS AT SHOPS.

Buildings and water supply appliances				Electric appliances			Machines and tools													Nails and bolts
Chimneys	Iron pipes	Water reservoirs	Stand-pipes	Motor	Storage battery	Electric fans	Crank pin machines	Bessemar converter	Machines for shops	Trolleys and other vehicles	Belt-pulleys	Snow-ploughs	Cranes and winches	Oil engines	Journal coolers	Marking-off tables and anvils	Hammers	Screw-drivers	Beaters and shovels	Lamps	
40	259	1	11	—	—	—	—	—	—	5	—	—	—	—	—	2	—	257	—	—	144
—	—	—	—	—	—	—	—	—	1	8	—	—	—	—	—	—	—	103	10	—	10,852
20	198	2	—	—	—	—	—	—	—	—	16	7	—	—	—	1	—	—	—	9	4,109
—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	11	—	—	600
—	—	5	—	—	338	40	—	—	—	37	—	—	3	—	—	—	—	—	—		—
	—	1	—	—	—	—	—	—	—	2	—	—	—	—	7	—	—	—	—	4	—
—	—	—	—	—	—	—	—	—	—	6	—	—	—	—	4	—	—	—	—	—	—
—	—	—	—	—	—	—	14	1	1	12	—	—	—	—	—	—	205	905	30	106	3,165
1	1,178	1	5	1	1,595	—	—	1	2	—	—	—	1	—	—	—	—	—	—	—	18,099
2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27	10	10	—	395
—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	299
—	377	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	17,522
1	—	—	—	—	—	—	—	—	—	58	—	—	—	—	—	—	—	—	—	767	6,628
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,561
1	—	—	3	—	—	—	—	—	2	—	—	—	—	—	—	—	14	—	—	32	7,657
—	—	—	—	—	—	—	—	—	—	11	—	—	—	—	—	—	—	172	—	—	8,039
—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	24	38	—	34	8,811
—	96	—	—	—	—	—	—	—	—	40	—	—	—	—	—	—	—	724	—	—	27,890
—	44	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—
—		—	—	—	—	—	—	—	—	4	—	—	—	—	—	—	—	127	—	—	90
60	457	3	11	—	—	—	—	—	—	14	16	7	—	—	—	3	—	371	10	9	4,853 10,852
—	—	6	—	—	338	40	—	—	—	45	—	—	3	—	11	—	—	—	—	4	—
2	1,555	1	5	1	1,595	—	14	2	3	12	—	—	1	—	—	—	232	915	40	106	39,477
2	—	—	3	—	—	—	—	—	2	58	—	—	—	—	—	—	14	—	—	799	13,846
—	140	—	—	—	—	—	—	—	—	56	—	—	—	1	—	—	24	1,061	—	34	44,830
65	2,152	10	19	1	1,933	40	14	2	5	185	16	7	4	1	11	3	270	2,347	50	952	4,853 111,005

Central Superintendent Office for convenience sake.

TABLE

PRINCIPAL REPAIR

Jurisdiction \ Kind		Rolling stock			Track appliances								Bridge girders and appliances			Buildings and water feeding appliances		
													Bridge girders					
		Locomotives	Carriages	Wagons	Signals	Interlockings	Interlockings (Simple type)	Swithes	Points	Turntables	Traversers	Buffer stops	Rolled	Plate	Viaducts	Chimneys	Water reservoirs	Stand-pipes
Eastern Div. Sup't Office	Omiya	523	1,032	15,110	-	-	-	3	7	2	1	9	8	12	—	-	298	—
	Morioka	222	189	1,321	—	-	-	2	1	-	-	45	-	—	—	—	-	—
	Tsuchizaki	200	273	1,424	—	-	-	—	—	—	—	10	—	2	—	-	-	—
	Honjo	62	1,020	1,792	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Central Div. Sup't Office	Shimbashi	216	1,299	4 241	22		44	22	30	5	4	—	—	—	—	3	—	—
	Numazu	—	4	2,186	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Nagano	161	1,091	2,515		—	-	-	-	-	-	—	—	—	—	5		2
	Kanagawa	38	430	1,686	—	—	-	—	1	—	-	—	1	—	—	—	—	—
Western Div. Sup't Office	Kobe	—	1,374	13,403	4	—	5	4	—	-		—	—	4	—	-	—	—
	Takatori	178	292	5,518	12	6	4	15	-	4	-	-	91	20	1	3	—	—
	Hiroshima	10	134	745	—	—	-	0	—	-	-	—	—	-	—	—	-	—
	Shimoseki	37	412	1,514	—	—	-	-	—	-	-	—		-	—	—	—	—
	Minatomachi	—	276	981	—	—	-	—	—	—	—	—	—	—	—	—	—	—
	Yokkaichi	80	794	2,125	—	—	-	8	4	—	1	—	—	—	—	1	—	—
	Ikeda	—	277	1,547	—	—	-	-	—	-	—	—	—	—	—	—	-	—
	Tadotsu	7	100	37		—	-	—		—	—	—	—			—	—	—
Kyushu Div. Sup't Office	Kokura	131	334	2,059	—	—	-	15	4	—	—	—	—	1	—	3	1	—
	Wakamatsu	50	74	1,981	—	-	-	5	17	—	2	—	—	—	—	—	—	—
	Yukihashi	86	240	2,102	—	—	-	14	—	—	4	—	—	—	—	—	—	—
Hokkoido Div. Sup't Office	Asahigawa	62	125	758	—	—	-	1	29	—	—	—	—	—	—	—	—	—
	Iwamizawa	75	168	7,182	6	—	-	—	—	—	—	—	—	—	—	—	—	—
	Temiya	39	65	2,279	—	—	-	9	3	1	—	—	4	—	—	—	—	—
	Sapporo	—	217	1,132	—	—	-	—	—	—	—	—	—	—	—	—	—	—
	Hakodade	30	78	777	-	-	-	—	—	—	—	—	—	—	—	—	-	—
Total	Eastern Div. Sup't Office	1,007	2,514	19,647	—	—	-	5	8	2	1	64	8	14	-	—	298	—
	Central Div. Sup't Office	415	2,824	0,628	22	—	44	22	31	5	4	—	1	—	—	8	1	2
	Western Div. Sup't Office	312	3,659	5,807	16	6	9	33	4	4	1	—	91	24	1	4	—	—
	Kyushu Div. Sup't Office	267	648	6,142	—	—	—	34	21	—	6	—	—	1	—	3	1	—
	Hokkaido Div. Sup't Office	206	653	12,123	6	—	-	10	32	1	-	-	-	4	-	—	—	—
Grand total		2,207	10,298	74,415	44	6	53	104	98	12	12	64	100	43	1	15	300	2

NO. XIII.

WORKS AT SHOPS.

Electric appliances			Machines and tools																
Generators	Motors	Storage batteries	Wrenches	Drilling machines	Oil engines	Engines	Feeder engines	Pumps	Machines for shaps	Trolleys and other vehicles	Snow-ploughs	Cranes and winches	Anvils and marking-off tables	Jacks	Hammers	Screw-drivers	Beaters	Shovels	Lamps
—	—	—	—	—	—	3	5	7	—	12	—	—	—	79	—	186	90	1,104	15,401
—	—	—		—	1	1	—	9	3	—	—	—	2	50	99	209	1,260	632	4,528
—	—	—	—	—	—	—	—	—	1	3	23	1	—	23	12	182	—	—	737
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9	31	176	69	2,050
—	—	—	—	—	—	—	—	—	34	—	—	—	—	—	252	456	478	4,843	25,244
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	40	123	—	390	38
	—	—	—	—	—	—	—	—	—	4	—	—	—	—	61	107	—	345	5,773
—	—	—	—	—	—	—	—	—	18	1	—	—	—	—	35	159	428	1,050	3,348
—	—	—	—		—	—	—	—	—	46	—	—	—	—	352	415	1,909	372	7,136
22	4	82	—		—	2	—	—	—	—	—	2	—	—	347	869	1,059	545	35
—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	159	193	2,410	666	792
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	65	131	800	87	601
—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	187	179	673	45	381
	—	—	2	—	—	—	—	—	—	—	—	—	—	—	162	27	285	4	6,208
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	50	21	161	16	33
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	41	2	105	—	419
		—	9	4	—	—	—	—	—	10	—	—	—	—	260	149	—	3	84
—	—		2	—	—	—	—	—	—	—	—	—	—	—	40	66	—	—	96
	—		—	—	—	—	—	—	—	—	—	—	—	—	218	68	—	15	156
	—	—	—	—	—	—	—	—	—	50	—	—	—	—	35	143	—	105	863
	—	—	—	—	2	—	—	—	—	11	—	—	—	—	125	140	—	126	2,313
—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	171	265	—	10	1,088
—	—	—	—		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	26	—	—	1
—	—	—	—	—	—	3	5	16	4	15	23	1	2	152	111	611	2,345	1,805	22,716
—	—	—	—	—	—	—	—	—	52	5	—	—	—	—	388	836	906	6,628	39,433
22	4	82	2	—	—	2	—	1	1	46	—	2	—	—	1,363	1,837	7,407	1,735	15,665
—	—	—	11	4	—	—	—	—	—	10	—	—	—	—	518	283	—	18	336
—	—	—	—	2	2	—	—	—	—	61	—	—	—	—	332	574	—	241	4,265
22	4	82	13	6	3	5	5	17	57	137	23	3	2	152	2,712	4,141	10,658	10,427	82,415

TABLE NO. XIV.

RESULTS OF LOCOMOTIVE WORKING ACCORDING TO INDIVIDUAL SUP'T OFFICES.

Item / Jurisdiction	Locomotive mileage	Car mileage.	Fuel for running		Oil for cylinder		Oil for machine		Average consumption of fuel per 100 loco miles		Average consumption of fuel per 1,000 car mileage		Oil for per loco miles				Average No. of cars hauled per loco per mile	Average loco mileage per day
			Amount	Value	Amount	Value	Amount	Value	Amount	Value	Amount	Value	For cylinder Amount	For cylinder Value	For machine Amount	For machine Vaule		
	mile	*mile*	*kin*	*yen*	*sho*	*yen*	*sho*	*yen*	*kin*	*yen*	*kin*	*yen*	*shaku*	*rin*	*shaku*	*rin*		*mile*
Eastern Div. Sup't. Office.	15,553,510.7	255,094,462.0	709,654.829	1,290,075,387	55,283·35	17,435.978	132,066.51	19,391.214	4.618	8.294	2,816	5.057	30	.112	85	.125	16.40	80
Central „ „ „	16,112,314.5	258,798,973 0	565,151.191	2,280,950.415	56,526.16	18,507.079	182,691.85	27,549.931	3,599	14.157	2.241	8.813	35	.115	113	.171	16.06	76
Western „ „ „	13,521,155.9	215,691,316.7	427,876.237	1,333,179.693	46,993.41	15,566.751	75,898.36	13,057.707	3,164	9.860	1,984	6.181	35	.115	56	.097	15 95	79
Kyushu „ „ „	7,326,540.0	149,272,370.6	203,780.438	472,721.794	25,302.70	8,400 458	45,442.01	6.056.414	2,781	6.452	1,365	3.167	35	.114	62	.083	20.37	76
Hokkaido „ „ „	4,976,364.9	80,797,470.3	229,357.013	389,920.942	14,891.05	4,765.135	28,818.71	5,065.220	4,609	7.835	2,839	4.826	30	.090	58	.102	16.24	72
Yonago Branch Office ...	482,306.7	5,266,909.4	11,375.830	57,522.542	3 01.42	255.764	3,882.50	600.459	2,359	7.780	2,160	7.124	17	.054	80	.124	10.92	40
Total	57,972,192.7	964,921.502.0	2,147,195.538	5,804,370.773	199,798.09	64,931.165	468,799.94	71,720.945	3,744	10.012	2,249	6.015	34	.112	81	.124	16. 64	77

N. B.—Besides the figures under the heading of the "Fuels for running," there are 4,399,271.15 *sho* of oil dregs consumed by the Eastern and the Central Superintendent Offices. Under the heading of "Average consumptien of fuel per 106 locomotive miles," etc.. the dregs, converted into *kin* at the rate of 1 *sho*=5.4 *kin* of coal, are included in the figures for coal.

TABLE NO. XV.

NUMBER AND WAGES OF LABOURERS AT THE WORKS.

Jurisdiction	Item	Number of labourers: At the end of the month	Number of labourers: At the end of the year	Number of work days	Aggregate number of labourers.	Aggregate number of day's work	Wages	Average No. and wages of labourers per day: No.	Average No. and wages of labourers per day: Wages	Average No. of labourers and wages per day per capita: No.	Average No. of labourers and wages per day per capita: Wages
							yen		*yen*		*yen*
Eastern Div. Sup't. Office	Omiya	2,696	2,715	318	804,796	882,888	554,500	2,531	1,744	1.10	.689
	Morioka	584	588	313	168,159	181,031	102,698	537	328	1.08	.611
	Tsuchizaki	701	693	321	215,227	239,711	102,415	670	319	1.11	.476
	Honjo	245	248	315	69,589	73,034	47,858	221	152	1.05	.688
Central Div. Sup't. Office	Shimbashi	2,345	2,642	334	713,270	789,977	577,022	2,136	1,728	1.11	.809
	Numazu	151	158	330	46,500	48,984	28,950	141	88	1.05	.623
	Nagano	596	661	333	188,238	215,862	127,803	565	384	1.15	.679
	Kanazawa	326	372	333	100,955	111,547	58,236	303	175	1.10	.577
Western Div. Sup't Office	Kobe	1,529	1,663	311	450,524	515,715	356,525	1,449	1,146	1.14	.791
	Takatori	1,452	1,611	314	413,604	457,329	325,279	1,317	1,036	1.11	.786
	Hiroshima	116	131	310	34,843	36,763	20,499	112	66	1.06	.588
	Shimonoseki	280	290	322	86,954	94,808	62,486	270	194	1.09	.719
	Minatomachi	144	135	329	42,932	46,223	30,611	130	93	1.08	.713
	Yokkaichi	528	545	317	153,349	177,821	105,950	484	334	1.16	.691
	Ikeda	142	149	321	45,779	50,078	31,721	143	99	1.09	.693
	Tadotsu	110	110	308	33,072	34,886	19,880	107	65	1.05	.601
Kyushu Div. Sup't. Office	Kokura	1,097	1,084	312	314,383	330,254	235,938	1,008	756	1.05	.750
	Wakamatsu	346	350	321	101,767	118,577	79,856	317	219	1.17	.785
	Yukihashi	681	688	312	196,951	201,367	143,349	631	459	1.02	.728
Hokkaido Div. Sup't. Office	Asahigawa	501	473	320	154,943	178,924	122,474	484	383	1.15	.790
	Iwamizawa	491	434	318	150,701	164,913	113,818	474	358	1.09	.755
	Temiya	251	252	310	77,208	82,424	54,224	249	175	1.07	.702
	Sapporo	241	248	306	74,454	80,692	57,600	243	188	1.08	.774
	Hakodate	105	104	314	31,525	34,322	23,031	109	73	1.09	.731
Total	Eastern Div. Sup't. Office	4,226	4,244	317	1,257,771	1,376,664	807,561	3,968	2,548	1.09	.642
	Central „ „ „	3,418	3,833	333	1,048,963	1,166,370	792,011	3,150	2,378	1.11	.755
	Western „ „ „	4,301	4,634	313	1,261,057	1,413,623	952,951	4,029	3,045	1.12	.756
	Kyushu „ „ „	2,124	2,122	313	613,101	650,198	459,143	1,959	1,467	1.06	.749
	Hokkaido „ „ „	1,589	1,511	315	488,831	541,275	371,147	1,552	1,178	1.11	.759
	Total	15,658	16,344	319	4,669,723	5,148,130	3,382,813	14,639	10,604	1.10	.724

TABLE NO. XVI.

TELEGRAPH, AND TELEPHONE LINES AT THE END OF YEAR.

Item \ Jurisdiction			Eastern Div. Sup't. Office	Central Div. Sup't. Office	Western Div. Sup't. Office	Kyushu Div. Sup't. Office	Hokkaido Div. Sup't. Office	Yonago Branch Office	Total	Inc. or dec. (△) against preceding year
Length	Line (*ri. cho. ken.*)		560.24.08	444.17.48	446.18.06	242.35.31	325.32.42	50.00.34	2,070.20.49	102.12.03
	Wire (*ri. cho. ken.*)		4,983.01.10	4,511.05.42	3,711.30.53	1,631.12.04	2,478.19.14	131.35.32	17,447.32.35	3,277.09.16
Poles and struts	Poles	Main	35,871	30,003	28,310	15,579	21,766	3,051	134,580	12,939
		Stays	1,151	1,916	1,614	573	4,156	61	9,471	△ 208
		Total	37,022	31,919	29,924	16,152	25,922	3,112	144,051	12,731
	Struts		33,117	26,756	15,642	10,180	7,074	1,762	94,531	26,072
Beams			108,856	96,297	77,077	36,281	60,926	5,052	384,489	49,619
Insulators			343,122	337,095	249,991	114,364	176,690	8,496	1,229,758	258,918
Number of poles per mile of line			63.9	67.4	63.3	64.1	66.8	61.0	65.0	3.2
Number of stays per mile of line			2.1	4.3	3.6	2.4	12.7	1.2	4.6	△ .2
Number of struts per mile of line			59.0	60.1	35.0	41.9	30.9	35.2	45.6	10.8
Length of wire per mile of line (*ri. cho. ken.*)			8.31.57	10.05.22	8.11.16	6.25.42	7.21.47	2.23.00	8.15.21	1.08.10
Number of beams per pole			3.0	3.2	2.7	2.3	2.8	1.7	2.9	.1
Number of insulators per pole			9.6	11.2	8.8	7.3	8.1	2.8	9.1	1.1

TABLE NO. XVII.

TELEGRAPH, AND TELEPHONE CIRCUITS AT THE END OF THE YEAR.

Jurisdiction	Item	Telegraphic circuit		Telephone circuit		Signal circuit		Total		Inc. or dec. (△) against preceding year	
		No.	Length	No.	Length	No.	Length	No.	Length	No.	Length
Eastern Div. Sup't. Office	Single	36	769.22.30	310	923.10.19	394	89.09.44	740	1,782.06.33	151	△ 408.00.10
	Combination	21	1,422.22.17	426	1,844.26.45	325	529.32.16	772	3,797.09.18	121	1,116.09.32
	Total	57	2,192.08.47	736	2,768.01.04	719	619.06.00	1,512	5,579.15.51	272	708.09.22
Central Div. Sup't. Office	Single	53	1,087.12.57	456	631.28.28	230	68.30.24	829	1,787.35.49	268	298.34.07
	Combination	32	1,473.02.35	371	1,817.12.56	313	440.35.06	716	3,731.14.37	102	943.22.49
	Total	85	2,560.15.32	827	2,449.05.24	633	509.29.30	1,545	5,519.14.26	370	1,242.20.56
Western Div. Sup't. Office	Single	26	891.34.24	396	870.15.39	340	86.35.41	762	1,849.13.44	272	680.34.11
	Combination	31	864.00.10	322	1,354.21.19	248	358.22.19	601	2,577.07.48	78	328.32.11
	Total	57	1,755.34.34	718	2,225.00.58	588	445.22.00	1,363	4,426.21.32	350	1,009.30.22
Kyushu Div. Sup't. Office	Single	36	660.28.13	189	649.26.47	165	52.18.22	390	1,363.01.22	50	8.03.03
	Combination	—	—	145	196.00.10	145	196.00.10	290	392.00.20	166	223.32.20
	Total	36	660.28.13	334	845.26.57	310	248.18.32	680	1,755.01.42	216	231.35.23
Hokkaido Div. Sup't. Office	Single	30	662.22.12	235	596.07.48	47	15.30.47	312	1,274.24.47	△ 7	80.07.07
	Combination	14	526.28.02	192	957.18.45	160	302.06.31	366	1,786.17.18	107	650.07.22
	Total	44	1,189.14.14	427	1,553.26.33	207	318.01.18	678	3,061.06.05	100	730.14.29
Yonago Branch Office	Single	3	73.29.04	11	50.35.56	17	7.06.32	31	131.35.32	4	31.17.38
	Total	3	73.29.04	11	50.35.56	17	7.06.32	31	131.35.32	4	31.17.38
Total	Single	184	4,146.05.20	1,597	3,722.16.57	1,283	320.23.30	3,064	8,189.09.47	738	691.23.56
	Combination	98	4,286.17.04	1,456	6,170.07.55	1,191	1,827.24.22	2,745	12,284.13.21	574	3,262 32.14
	Total	282	8,432.22.24	3,053	9,892.24.52	2,474	2,148.11.52	5,809	20,473.23.08	1,312	3,954.20.10

TABLE NO. XVIII.

TELEGRAPH, TELEPHONE AND BLOCK APPARATUS AT THE END OF THE YEAR.

Kind	Jurisdiction	Eastern Div. Sup't. Office	Central Div. Sup't. Office	Western Div. Sup't. Office	Kyushu Div. Sup't. Office	Hokkaido Div. Sup't. Office	Yonago Branch Office	Total	Inc. or dec. (△) against preceding year.
Telegraph apparatus	On the actual service	532	575	356	268	325	9	2,065	293
	In reserve	96	170	64	128	126	18	602	147
	Total	628	745	420	396	451	27	2,667	440
Telephone apparatus	On the actual service	1,597	1,698	1,664	1,006	865	59	6,889	1,501
	In reserve	124	345	167	209	137	29	1,011	355
	Total	1,721	2,043	1,831	1,215	1,002	88	7,900	1,856
Block instruments	On the actual service	677	629	494	300	322	—	2,422	349
	In reserve	45	110	52	33	32	—	272	△ 36
	Total	722	739	546	333	354	—	2,694	313
Automatic time-sounders	On the actual service	17	8	5	—	12	—	42	△ 2
	In reserve	1	1	1	—	10	—	13	△ 1
	Total	18	9	6	—	22	—	55	△ 3
Telephone exchange apparatus	On the actual service	13	9	8	3	13	—	46	10
	In reserve	1	2	1	1	11	—	16	6
	Total	14	11	9	4	24	—	62	6
Repeaters	On the actual service	166	220	133	213	45	17	794	242
	In reserve	—	16	5	33	2	1	57	△ 6
	Total	166	236	138	246	47	18	851	236
No. of telegraphs per circuit		9.3	6.8	6.2	7.4	7.4	3.0	7.3	1.0
No. of telephones per circuit		2.2	2.1	2.3	3.0	2.0	5.4	2.3	9
No. of block instruments per circuit		2.0	2.0	2.0	2.0	2.0	—	2.0	0

TABLE NO. XIX.

BATTERIES AT THE END OF THE YEAR.

Kind / Jurisdiction		Eastern Div. Sup't. Office	Central Div. Sup't. Office	Western Div. Sup't. Office	Kyushu Div. Sup't. Office	Hokkaido Div. Sup't. Office	Yonago Branch Office	Total	Inc. or dec. (△) against preceding year
Daniel	On the actual service	7,476	14,848	4,362	3,891	4,089	333	34,999	715
	In reserve		390	—	—	90	—	480	102
	Total	7,476	15 238	4,362	3,891	4,179	333	35,479	817
Dry	On the actual service	15,887	8,411	11,205	3,881	9,365	122	48,871	10,133
	In reserve	—	-	33	400	70	77	580	△ 315
	Total	15,887	8,411	11,238	281	9,435	199	49,451	9,818
Leclanche	On the actual	245	128	—	—	38	—	411	△ 1
	Total	245	128	—	—	38	—	411	△ 1
Gravity	On the actual service	32	344	—	24	10	—	410	△ 488
	Total	32	344	—	24	10	—	410	△ 488
Fuller	On the actual service	-	—	—	—	8	—	8	△ 4
	Total	-	-	—	-	8	—	8	△ 4
Storage	On the actual service	48	193	607	—	—	—	848	266
	In reserve	—	—	214	—	—	—	214	△ 101
	Total	48	193	821	—	—	—	1,062	165

TABLE NO. XX.

RESULTS OF MESSAGE TRAFFIC.

Kind \ Jurisdiction		Eastern Div. Sup't. Office	Central Div. Sup't. Office	Western Div. Sup't. Office	Kyushu Div. Sup't. Office	Hokkaido Div. Sup't. Office	Yonage P'ranch Office	Grand total	Inc. or dec. (△) against preceding year
Railway telegrams	Despatched	3,027,584	4,262,405	3,230,247	1,067,099	1,708,618	109,653	13,405,606	1,351,056
	Received	2,979,846	5,187,228	3,260,179	1,156,101	1,766,363	99,799	14,449,516	1,442,703
	Transit	1,985,454	3,085,100	3,191,524	820,842	1,069,515	109,433	10,261,868	1,262,280
	Total	7,992,884	12,534,733	9,681,950	3,044,042	4,544,496	318,885	38,116,990	4,056,039
Public telegrams	Despatched	550,989	522,807	647,723	369,996	361,439	12,703	2,465,657	191,774
	Received	174,494	161,931	176,404	142,884	101,303	6,208	763,224	25,565
	Transit	679,625	770,802	720,316	541,118	356,985	13,087	3,081,933	109,219
	Total	1,405,108	1,455,540	1,544,443	1,053,998	819,727	31,998	6,310,814	326,558
Grand total		9,397,992	13,990,273	11,226,393	4,098,040	5,364,223	350,883	44,427,804	4,382,597
Average number of railway telegrams dealt with per day per station.		65	113	79	50	72	24	77	5
Average number of public telegrams dealt with per day per station.		17	23	18	23	24	9	20	0
Total		76	127	91	68	85	27	90	5
Ratio of messages received per 100 of railway messages despatched.		98	122	101	108	103	91	108	0
Ratio of messages transit per 100 of railway messages despatched.		66	72	99	77	63	100	77	2
		yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
Share of telegrams receipt due to state railways	Despatched	24,918.000	24,073.825	29,270.400	16,468.975	16,540.700	557.025	111,828.925	8,329.475
	Received	4,821.180	4,818.600	4,664.320	4,179.060	2,941.000	153.380	21,577.540	568.520
	Transit	15,555.725	17,897.900	16,498.200	12,650.475	8,164.550	267.500	71,034.350	3,238.625
	Exchanged	7.600	-	90.465	48.505	—	—	146.570	△ 142.205
	Delivery charges	5,459.810	5,626.882	5,187.129	4,474.215	2,793.925	129.122	23,671.083	△ 476.679
	Receipts	20.550	9.540	17.880	7.320	10.140	60	65.490	1.650
	Copying	2.150	2.300	2.900	1.100	2.400	—	10.850	△ 450
	Total	50,785.015	52,429.047	55,731.294	37,829.650	30,452.715	1,107.087	228,334.808	11,518.936
Average number of messages dealt with per station		225.11	301.316	229.347	297.871	327.449	110.709	261.852	△ 2.558
Number of stations dealing with railway telegrams		338	303	337	166	173	36	1,353	55
Number of stations number accepting public telegrams		225	174	233	127	93	10	862	42
Ratio of stations dealing with public telegrams per 100 of stations dealing with railway telegrams		67	57	69	77	54	28	64	1

N.B.—The Telegraph Office in the Head Office is included in the returns of the Central Superintendent Office.

TABLE NO. XXI.

ACCIDENTS TO ELECTRIC COMMUNICATION.

Kind	Jurisdiction	Eastern Div. Sup't. Office	Central Div. Sup't Office	Western Div. Sup't. Office	Kyushu Div. Sup't. Office	Hokkaido Div. Sup't. Office	Yonago Branch Office	Total	Inc. or dec. (△) against preceding year
Telegraphic circuit	Breakdown	101	340	104	53	28	2	628	54
	Contact	301	369	332	59	33	1	1,095	257
	Grounded	298	578	216	35	70	—	1,197	286
	Others	13	262	3	80	25	—	383	175
	Total	713	1,549	655	227	156	3	3,303	772
Telephone circuit	Breakdown	36	22	7	57	4	3	129	△ 12
	Contact	129	40	26	34	1	1	231	119
	Grounded	88	29	25	1	6	—	149	55
	Others	4	69	2	102	—	—	177	60
	Total	257	160	60	194	11	4	186	222
Signal circuit	Breakdown	176	136	38	43	9	—	412	△ 80
	Contact	13	22	8	11	7	—	61	24
	Grounded	22	6	38	12	10	—	88	16
	Others	299	403	258	540	289	—	1,789	612
	Total	510	567	342	606	325	—	2,350	572
Grand Total	Breakdown	313	498	149	153	51	5	1,169	△ 38
	Contact	443	431	366	104	41	2	1,387	400
	Grounded	408	613	279	48	86	—	1,434	357
	Others	316	734	263	722	314	—	2,349	847
	Total	1,480	2,276	1,057	1,027	492	7	6,339	1,566

TABLE NO. XXII.

MOTORS, GENERATORS AND TRANSFORMERS AT THE END OF THE YEAR.

Item / Jurisdiction	Prime motor		Generator		Transformer or converter	
	No.	Total H. P.	No.	Total H. P	No.	Total H. P.
Eastern Div. Sup't. Office	9	1,643	8	1,055	14	950
Central Div. Sup't. Office	7	1,565	9	963	31	1,055
Western Div. Sup't. Office	14	1,408	14	1,002.5	4	315
Kyushu Div. Sup't. Office	8	547	9	346	4	13
Hokkaido Div. Sup't. Office	9	779	8	454.5	—	—
Total	47	5,942	48	3,821.0	63	2,393
Inc. of dec. (△) against preceding year	2	974	△ 2	581.5	32	1,087

TABLE NO. XXIII.

POWER CABLES AT THE END OF THE YEAR.

Jurisdiction \ Item		Pole			Strut and Stay			Length of lines	Length of wires	Beam	Insulator
		Main pole	Sub-pole	Total	Strut	Stay	Total				
								ri.cho.ken.	*ri.cho.ken.*		
Eastern Div. Sup't. Office	Self-supplied ...	1,858	139	1,997	83	1,814	1,897	18.11.32	× 45.06.50 55.07.00	2,675	6,869
	Purchased ...	1,132	—	1,132	11	428	439	7.31.51	× 23.49 16.32.16	3,376	6,704
	Total	2,990	139	3,129	94	2,242	2,336	26.07.23	× 40.30.39 72.03.16	6,051	13,573
Central Div. Sup't. Office	Self-supplied ...	2,674	1,331	4,005	227	3,673	3,900	21.01.10	× 15.14.58 124.18.03	6,133	14,766
	Purchased ...	708	—	708	—	104	104	7.34.44	19.24.37	1,179	2,757
	Total	3,382	1,331	4,713	227	3,777	4,004	28.35.54	× 15.14.58 144.03.45	7,312	17,523
Western Div. Sup't. Office	Self-supplied ...	870	–	870	17	240	257	7.11.31	× 7.30.46 26.24.36	1,685	4,844
	Purchased ...	744	—	744	20	135	155	5.01.03	× 26.14 13.22.39	1,009	2,275
	Total	1,614	–	1,614	37	375	412	12.12.34	× 8.21.00 40.11.15	2,694	7,119
Kushu Div. Sup't. Office	Self-supplied ...	411		411	1	154	155	3.22.25	× 6.12.53 12.30.44	935	2,228
	Purchased ...	658	—	658	9	225	234	4.33.44	× 1.08.27 13.22.57	1,041	2,424
	Total	1,069		1,069	10	379	389	8.20.09	× 7.21.20 26.17.41	1,976	4,652
Hokkaido Div. Sup't. Office ...	Self-supplied ...	243	—	243	15	99	114	2.18.09	× 30.49 7.33.42	581	1,356
	Purchased ...	233	—	233	5	42	47	2.02.05	4.29.27	361	1,061
	Total	476	—	476	20	141	161	4.20.14	× 30.49 12.27.09	942	2,417
Yonago Branch Office	Purchased ...	1	—	1	–	—	—	42	1.24	2	2
	Total	1	—	1	—	—	—	42	1.24	2	2
Total	Self-supplied ...	6,056	1,470	7,526	343	5,980	6,323	52.28.47	× 70.24.16 227.06.10	12,009	30,063
	Purchased ...	3,476	—	3,476	45	934	979	27.32.09	× 2.22.30 68.22.20	6,968	15,223
	Total	9,532	1,470	11,002	388	6,914	7,302	80.24.56	× 73.10.46 295.28.30	18,977	45,286
Inc. or dec. (△) against the preceding year	Self-supplied ...	1,474	2	1,476	49	4,934	4,983	15.08.29	46.10.58	2,360	6,810
	Purchased ...	1,358	0	1,358	△ 7	419	412	8.12.58	21.13.56	2,541	5,665
	Total	2,832	2	2,834	42	5,353	5,395	23.21.27	67.24.54	4,901	12,475

TABLE

ELECTRIC LAMPS AT THE

Jurisdiction	Kind		Glow									
			5 c. p. and below	6 c. p.	8 c. p.	10c.p.	12c.p	16c p.	20c.p.	24c.p.	25c.p.	32c.p.
Eastern Div. Sup't Office	Self-supplied	Kashiwagi Generating Station ..	—	—	—	—	—	95	—	—	—	—
		Omiya works	—	—	—	1,042	—	214	—	—	—	—
		Tsuchizaki Transformer Station...	—	—	54	195	—	720	—	4	—	1
		Miuchigawa Generating Station ...	—	—	9	12	—	29	—	—	—	—
		Total	—	—	63	1,249	—	1,058	—	4	—	1
	Purchased		177	—	22	1,351	—	3,297	4	57	10	40
	Total		177	—	85	2,600	—	4 355	4	61	10	41
Central Div. Sup't Office	Self-supplied	Shimbashi Generating Station ...	—	—	—	246	—	1,634	—	56	639	—
		Kashiwagi Generating Station ...	—	—	—	28	—	723	—	—	—	156
		Hodogaya Transformer Station ...	—	—	4	90	—	296	—	38	—	40
		Total	—	—	4	364	—	2,653	—	49	639	196
	Purchased		118	2	—	1 849	—	2,829	62	309	34	64
	Total		118	2	4	2,213	—	6,482	62	403	673	260
Western Div. Sup't Office	Self-supplied	Osaka Generating Station	16	—	—	93	—	350	—	—	31	41
		Takatori Generating Station ...	99	—	—	800	—	1,036	—	89	—	171
		Himeji Generating Station	1	—	—	151	—	149	—	—	2	—
		Okayama Generating Station ...	3	—	—	122	—	212	—	—	—	—
		Hiroshima Generating Station ...	4	—	—	113	—	174	—	—	44	—
		Mitajiri Generating Station... ...	—	—	—	145	—	5	—	—	—	3
		Shimonoseki Generation	990	—	—	276	—	591	—	—	94	13
		Total	1,113	—	—	1,700	—	1,517	—	89	171	228
	Purchased		56	6	26	1,197	—	2,477	91	27	154	12
	Total		1,169	6	26	2,897	—	4,994	91	116	325	240
Kyushu Div. Sup't Office	Self-supplied	Moji Generating Station	13	—	—	11	—	437	54	—	—	2
		Tobata Generating Station	—	—	—	3	30	155	46	10	—	7
		Wakamatsu Generating Sation ...	—	—	—	—	—	299	—	—	—	—
		Yukihashi Generating Station ..	—	—	—	4	—	93	—	—	5	—
		Total	13	—	—	18	30	984	100	10	5	9
	Purchased		—	—	3	321	—	1,703	30	74	95	20
	Total		13	—	3	339	30	2,687	130	84	100	29
Hokkaido Div. Sup't Office	Self-supplied	Iwamizawa Generating Station ...	—	—	—	78	—	588	—	—	—	—
		Asahigawa Generating Station ...	—	—	—	—	—	986	—	—	—	—
		Sapporo Works	—	—	—	—	—	28	—	—	—	—
		Oiwake Generating Station... ...	—	—	—	—	—	152	—	—	—	—
		Total	—	—	—	78	—	1,754	—	—	—	—
	Purchased		17	—	1	147	—	951	—	52	7	53
	Total		17	—	1	225	—	2,705	—	52	7	53
Yonago Branch Office	Self-supplied		—	—	—	—	—	—	—	—	—	—
	Purchased		3	—	—	16	—	154	—	1	—	13
	Total		3	—	—	16	—	154	—	1	—	13
Grand Total	Self-supplied...		1,126	—	67	3,409	30	8,966	100	197	815	434
	Purchased		371	8	52	4,881	—	12,411	187	520	300	202
	Total		1,497	8	119	8,290	30	21,377	287	717	1,115	663

NO. XXIV.

END OF THE YEAR.

Light						Arc Light													
35 c.p.	50c.p. and above	Total		As converted into 10 c. p.		120 c.p.	200 c.p.	400 c.p.	600 c.p.	800 c.p.	1200 c.p.	1500 c.p.	2000 c.p.	2200 c.p.	3600 c.p.	Total		As converted into 1000 c. p.	
		Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against prec. year											Year under review	Inc. ro dec. (△) against prec. year	Year under review	Inc. or dec. (△) against prec. year
—	—	95	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	34	1,290	—	—	—	—	—	—	—	—	13	—	—	82	—	95	—	—	—
—	—	974	—	—	—	—	—	—	—	—	—	—	11	—	—	11	—	—	—
—	—	50	—	—	—	—	—	—	—	—	—	—	1	—	—	1	—	—	—
—	34	2,409	1,728	3,330	2,411	—	—	—	—	—	13	—	2	82	—	107	53	220	155
—	143	5,101	1,240	7,970	4,280	—	—	—	—	—	84	13	—	—	—	97	4	120	4
—	177	7,510	2,968	11,300	6,691	—	—	—	—	—	97	13	12	82	—	204	57	340	159
—	96	2,671	—	—	—	40	—	—	—	—	37	—	—	—	—	77	—	—	—
—	116	1,023	—	—	—	—	8	—	—	—	—	—	—	—	—	8	—	—	—
—	19	487	—	—	—	—	—	—	—	—	14	—	—	—	—	14	—	—	—
—	231	4,181	△ 1,039	8,340	△ 986	40	8	—	—	—	14	—	—	—	—	99	45	68	3
1	117	6,385	2,612	9,340	6,333	—	—	—	—	1	51	8	—	—	—	60	△ 1	74	—
1	348	10,566	1,573	18,205	5,347	40	8	—	—	1	102	8	—	—	—	159	44	142	3
—	132	663	—	—	—	—	—	—	2	—	21	—	—	—	—	23	—	—	—
—	7	3,202	—	—	—	—	—	—	1	—	49	—	—	—	—	50	—	—	—
—	—	303	—	—	—	—	—	—	1	—	9	—	—	—	—	10	—	—	—
—	—	337	—	—	—	—	—	1	—	—	8	—	—	—	—	9	—	—	—
—	—	335	—	—	—	—	—	—	—	—	10	—	—	—	—	10	—	—	—
—	—	753	—	—	—	—	—	—	—	—	2	—	—	—	—	2	—	—	—
—	—	1,964	—	—	—	—	—	—	—	—	18	—	—	—	—	18	—	—	—
—	139	5,957	1,119	7,520	1,939	—	—	1	4	—	117	—	—	—	—	122	△ 2	143	△ 5
2	94	4,142	1,452	6,425	2,436	—	1	—	—	—	64	—	1	—	—	66	25	79	33
2	233	10,099	2,571	13,951	4,375	—	1	1	4	—	181	—	1	—	—	188	23	222	28
—	4	521	—	—	—	—	—	—	—	—	36	—	—	—	—	36	—	—	—
—	49	300	—	—	—	—	—	—	—	—	54	—	—	—	—	54	—	—	—
—	14	313	—	—	—	—	—	—	—	—	35	—	—	—	—	35	—	—	—
—	1	103	—	—	—	—	—	—	—	—	6	—	—	—	—	6	—	—	—
—	68	1,237	68	2,240	2	—	—	—	—	—	131	—	—	—	—	131	9	157	11
—	62	2,308	971	3,952	1,563	—	—	—	—	—	101	—	—	—	—	101	37	121	44
—	130	3,545	1,039	6,192	1,565	—	—	—	—	—	232	—	—	—	—	232	46	278	55
—	—	660	—	—	—	—	—	—	—	—	20	—	—	—	—	20	—	—	—
—	—	980	—	—	—	—	—	—	—	—	12	—	—	—	—	12	—	—	—
—	—	28	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	152	—	—	—	—	—	—	—	—	5	—	—	—	—	5	—	—	—
—	—	1,832	657	2,884	1,004	—	—	—	—	—	37	—	—	—	—	37	7	44	8
—	40	1,968	430	2,205	719	—	—	—	—	—	23	7	—	—	2	35	11	48	18
—	40	3,100	1,087	5,089	1,723	—	—	—	—	—	56	5	—	—	2	72	18	92	26
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	187	69	308	103	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	187	69	308	103	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	472	15,616	2,533	24,320	4,370	40	8	1	4	—	349	—	12	82	—	496	112	632	172
3	456	19,391	6,774	30,725	15,434	—	1	—	—	1	328	26	1	—	2	359	76	442	99
3	928	35,007	9,307	55,045	19,804	40	9	1	4	1	674	26	13	82	2	855	188	1,074	271

TABLE NO. XXV.

RESULTS AT GENERATING STATIONS.

Jurisdiction	Item	Total Generating Capacity	Coal Consumed	Expenses				Average per k.w.	
				Fuel	Repair	Others	Total	Coal Consumed	Expenses
		k.w.h.	*kin*	*yen*	*yen*	*yen*	*yen*	*kin*	*sen*
Eastern Div. Sup't Office	Omiya Works	603,646	5,501,462	8,510.428	72.000	2,664.482	11,246.900	9.1	1.86
	Miuchigawa Generating Station	356,382	—	—	—	1,712.552	1,712.552	—	.48
	Total	960,028	5,501,462	8,510.428	72.000	4,377.034	12,959.462	—	1.35
Central Div. Sup't Office	Shimbashi Generating Station	1,512,097	11,683,644	16,762.831	1,250.197	8,673.470	26,686.498	7.7	1.76
	Kashiwagi Generating Station	1,173,496	10,420,600	13,994.397	975.840	9,175.838	24,146.075	8.9	2.0-
	Total	2,685,593	22,104,244	30,757.228	2,226.037	17,849.308	50,832.573	8.2	1.89
Western Div. Sup't Office	Osaka Generating Station	274,717	1,942,148	5,856.241	1,189.139	2,913.866	9,959.246	7.1	3.63
	Takatori Generating Station	1,401,090	7,370,498	22,323.016	770.971	8,624.838	31,718.825	5.3	2.26
	Himeji Generating Station...	126,607	* 12,000 1,546,654	4,597.988	409.334	1,751.549	6,758.871	—	5.34
	Okayama Generating Station	61,955	* 24,300 745,304	1,865.813	247.540	1,108.019	3,221.372	—	5.20
	Itozaki Generating Station...	22,971	* 64,750 282,069	745.641	120.346	788.662	1,654.649	—	7.20
	Hiroshima Generating Station	104,094	* 101,000 800,210	1,984.854	322.512	1,620.991	3,928.357	—	3.77
	Mitajiri Generating Station	34,957	* 236,795 214,897	788.052	65.867	1,297.951	2,151.870	—	6.16
	Shimonoseki Generating Station	333,366	2,391,253	6,862.041	873.267	3,763.453	11,498.761	7.2	3.45
	Total	2,359,757	* 438,845 15,293,033	45,023.646	3,998.976	21,869.329	70,891.951	—	3.00

Kyushu Div. Sup't Office	Moji Generating Station	172,135		1,123,040	2,671.624	2,099.272	3,204.495	7,975.391	6.5	4.63
	Moji Lighting Station	2,699	×	33,796	669.711	—	533.085	1,142.796	× 12.5	42.34
	Tobata Generating Station...	213,974		1,173,320	2,841.122	1,563.121	3,909.197	8,313.440	5.5	3.89
	Wakamatsu Generating Station...	119,575		1,190,760	2,893.057	1,068.493	3,164.108	7,125.658	10.0	5.96
	Yukihashi Generating Station	24,346		341,380	840.572	268.757	1,469.198	2,578.527	14.0	10.59
	Kokura Generating Station	1,133		40,365	94.622	—	216.927	311.549	35.6	27.50
	Total	533,862	×	33,796 3,868,865	9,950.708	4,999.643	12,497.000	27,447.361	7.3	5.14
Hokkaido Div. Sup't Office	Iwamizawa Generating Station (A. C.) ...	186,084		2,161,115	3,533.192	659.334	3,553.497	7,746.023	11.6	5.16
	Iwamizawa Generating Station (D. C.) ...	78,084		1,560,100	2,516.478	438.173	2,087.796	5,042.447	20.0	6.46
	Asahigawa Generating Station	431,959		2,881,957	4,315.717	1,148.694	5,237.622	10,702.033	6.7	2.48
	Sapporo Works	45,160		501,855	973.375	51.790	463.035	1,488.200	11.1	3.30
	Oiwake Generating Station	22,188	*	24,374 ° 33,187	350.338	69.107	909.902	1,329.347	—	5.99
	Total	763,475	*	24,374 ° 33,187 7,105,027	11,689.100	2,367.098	12,251.852	26,308.050	—	3.45
Grand total		7,302,715	°	33,187 * 463,219 × 33,796 53,872,631	105,931.110	13,663.754	68,844.533	188,439.397	—	2.58
Inc. or dec. (△) against the preceding year		1,814,365	°	33,187 * 463,219 △× 6,202 12,169,302	16,902.950	3,534.353	9,078.004	29,515.307	—	△ .32

N.B.—The asterisk (*) in the column "Fuel" indicates cokes, petroleum (×), and charcoal (°), petroleum being represented in *go*.

TABLE NO. XXVI.

ELECTRIC MOTIVE POWER AT THE END OF THE YEAR.

Jurisdiction \ Item	Electric Motors	
	No.	Capacity
	set	*h.p.*
Eastern Divisional Superintendent Office	84	1,425.75
Central Divisional Superintendent Office	54	981.50
Western Divisional Superintendent Office	90	1,351.00
Hokkaido Divisional Superintendent Office	25	630.00
Total	253	4,388.25
Compared with preceding year	53	1,063.00

TABLE NO. XXVII.

ELECTRIC CARS AT THE END OF THE YEAR.

Kind \ Item	Number	Motors			
		for Running		for Vacuum	
		No.	H. P.	No.	H. P.
Bogie (single) — On the actual service	19	28 48	1,274.0 2,400.0	12 7	60.0 35.0
Bogie (single) — In reserve	11	12 32	546.0 1,600.0	3 8	15.0 40.0
Bogie (single) — Total	30	120	5,280.0	30	150.0
4-wheel (single) — On the actual service	3	4 2	200.0 90.0	3	7.8
4-wheel (single) — In reserve	15	12 18	600.0 810.0	15	30.0
4-wheel (single) — Total	18	36	1,700.0	18	37.8
4-wheel (two cars coupled) — On the actual service	6	6	300.0	6	15.6
4-wheel (two cars coupled) — In reserve	6	6	300.0	1 5	2.6 27.5
4-wheel (two cars coupled) — Total	12	12	600.0	12	45.7
4-wheel (three cars coupled) — On the actual service	9	8 4	360.0 200.0	2 1	10.0 5.5
4-wheel (three cars coupled) — Total	9	12	560.0	3	15.5
Grand total — On the actual service	37	100	4,824.0	31	133.9
Grand total — In reserve	32	80	3,856.0	32	115.1
Grand total — Total	69	180	8,680.0	63	249.0
Inc. or dec. (Δ) against preceding year	25	72	3,617.0	21	116.0

TABLE NO. XXVIII.

RESULTS AT ELECTRIC TRANSFORMER STATIONS.

Jurisdiction	Item	Watts output		Watts input	Price	Expenses			Cost price	Average expenses per k. w.
						Repair	Others	Total		
		k. w. h.		*k. w. h.*	*yen*	*yen*	*yen*	*yen*	*sen*	*sen*
Eastern Div. Sup't. Office	Ueno Charging Station	7,505		11,194	1,119.400	—	89.630	89.630	1.19	16.11
	Tsuchizaki Transformer Station	302,430	×	345,805	1,661.577	238.121	2,095.425	2,333.546	.77	1.32
	Total...	309,935		356,999	2,780.977	238.121	2,185.055	2,423.176	.78	1.68
Central Div. Sup't. Office	Ikebukuro Transformer Station	605,698	×	697,500	14,017.347	144.566	1,091.012	1,235.578	.20	2.52
	Hohogaya „ „	156,570		156,570	3,768.040	244.923	890.093	1,135.016	.72	3.13
	Nagano Works	223,132		223,132	1,839.105	47.407	1,134.158	1,191.565	.53	1.35
	Total...	985,400		1,077,202	19,624.492	436.896	3,115.263	3,552.159	.36	2.35
Western Div. Sup't. Office	Kobe Transformer Station	282,872	×	346,261	7,845.400	911.080	2,258.856	3,169.936	1.12	3.89
	Yokkaichi Works	137,880		137,880	3,447.000	2.100	151.168	153.268	.11	2.61
	Total...	420,752		484,141	11,292.400	913.180	2,410.024	3,323.204	.79	3.47
Hokkaido Div. Sup't. Office	Sapporo Generating Station	3,843		3,843	268.947	—	117.679	117.679	3.06	10.06
	Total...	3,843		3,843	268.947	—	117.679	117.679	3.06	10.06
Grand total		1,719,930		1,922,185	33,966.816	1,588.197	7,828.021	9,416.218	.55	2.52
Inc. or dec. (△) against preceding year		658,832		730,058	8,877.678	△ 59.079	2,795.637	2,736.558	△ .80	△ .47

N. B.—The figures indicated by the asterisk (×) represents the amount of Watts supplied by the railway stations, the others being all purchased.

TABLE NO. XXIX.

DETAILS OF EXPENSES FOR OPERATION.

Item \ Jurisdiction	Head Office	Eastern Div. Sup't. Office	Central Div. Sup't. Office	Western Div. Sup't. Office	Kyushu Div. Sup't. Office	Hokkaido Div. Sup't. Office	Yonago Branch Office	Total
General Expenses								
Salaries, pensions, etc.	228,550	58,587	51,487	55,524	46,055	39,433	2,198	481,334
Office expenses	401,528	71,603	209,743	76,852	67,229	70,647	4,213	901,815
Subversions to the International Railway Congress Association	300	—	—	—	—	—	—	300
Surveying	141,156	—	—	—	—	—	—	141,656
Education	25,381	2,850	4,847	4,274	2,163	924	—	40,439
Losses made good	783	—	—	—	71	—	—	854
Total	798,198	133,040	266,077	136,650	115,518	11,004	6,411	1,566,893
Maintenance of way, etc.								
Salaries, pensions, etc.	24,760	128,698	117,567	132,496	106,269	55,561	7,015	572,366
Office expenses	19,895	252,658	281,398	318,145	118,840	159,518	22,204	1,172,658
Maintenance of way	—	1,806,336	2,055,717	1,506,316	994,419	1,113,215	103,264	7,579,267
Maintenance of buildings	18,538	217,103	219,741	206,856	60,330	103,336	5,915	832,419
Total	93,193	2,404,795	2,674,423	2,163,813	1,280,458	1,431,630	138,398	10,156,710
Transportation Expenses								
Salaries, pensions, etc.	37,194	222,990	216,020	201,131	98,678	104,797	11,455	892,265
Office expenses	32,179	153,871	221,254	148,293	98,381	96,623	13,549	764,150
Operating locos, etc.	6	2,442,598	3,440,291	2,411,739	1,027,815	860,959	69,995	10,253,403
Maintenance of equipment	518	1,606,192	1,715,842	1,618,338	935,594	692,195	51,745	6,620,425
Total	69,897	4,425,651	5,593,407	4,379,501	2,160,468	1,754,575	146,744	18,530,243
Traffic Expenses								
Salaries, pensions, etc.	55,819	368,335	391,233	364,811	169,499	150,220	22,520	1,522,437
Office expenses	121,314	118,361	165,112	160,534	89,146	66,135	8,110	729,212
Station expeneses	240	1,653,280	2,051,831	2,203,554	1,029,597	749,598	83,762	7,771,862
Train expenses	163,178	524,956	558,476	458,135	281,639	213,875	10,852	2,211,111
Total	341,051	2,164,932	3,166,652	3,187,034	1,569,881	1,179,828	125,244	12,234,622
Electric Expenses								
Salaries, pensions, etc.	12,480	16,655	27,094	19,108	10,573	8,094	—	94,004
Office expenses	10,958	30,576	67,243	40,364	26,569	24,707	200	200,617
Communication apparatus	2,030	37,492	30,807	25,705	17,368	14,162	1,146	128,710
Operating electric cars.	—	—	77,663	—	—	—	—	77,663
Electric lighting power supply	1,969	76,550	380,871	177,597	91,696	53,520	1,621	783,824
Electric lines	23	132,880	199,229	51,810	31,337	33,295	6,026	454,600
Total	27,460	294,153	782,907	314,584	177,543	133,773	8,993	1,739,418
Hotels Expenses								
Salaries, pensions, etc.	—	—	—	660	—	—	—	660
Office expenses	—	—	—	32,360	—	—	—	32,360
Total	—	—	—	33,020	—	—	—	33,020
Ships Expenses								
Salaries, pensions, etc.	5,904	18,505	—	58,176	—	171	—	82,756
Office expenses	16,691	5,530	—	19,240	—	838	256	42,055
Connection services	—	53,192	—	155,925	—	41,224	6,868	257,209
Operating ships	—	229,555	—	720,554	—	6,367	—	956,476
Maintenance of floating equipment	—	26,768	—	130,760	—	1,594	—	159,122
Duties and fees	—	—	—	21,084	—	—	—	21,084
Total	22,595	233,550	—	1,105,739	—	49,694	7,124	1,518,702
Additional Expenses								
Interest and charges for loans	—	7,265	14,889	30,173	2,506	33,421	49	88,303
Interest on capital	31,067,245	—	—	—	—	—	—	31,067,245
Interest on loans	621,348	—	—	—	—	—	—	621,348
Charges for loans	120,869	—	—	—	—	—	—	120,869
Total	31,809,462	—	—	—	—	—	—	31,809,462
Refunds and advances								
Refunds	1,402,421	126,091	38,721	61,895	124,722	28,521	2,951	1,785,322
Passenger receipts	947,073	9,715	25,809	33,686	7,526	6,269	560	1,030,638
Goods receipts	455,348	11,286	12,314	25,831	115,032	20,351	2,390	746,552
Ground rent, etc.	—	960	339	1,643	2,085	1,775	—	6,802
Levies from venders at stations	—	26	—	24	3	120	—	173
Rent for vehicles	—	—	—	—	1	1	—	2
Sale of articles	—	—	215	222	55	—	—	492
Miscellaneous	—	104	44	489	20	5	1	663
Advances	—	2,786	45	767,386	41,303	—	8,431	819,951
Passenger fares	—	—	—	6,845	—	—	—	6,845
Goods rates	—	2,786	45	760,541	41,303	—	8,431	813,106
Total	1,402,421	128,877	38,766	829,281	166,025	28,521	11,382	2,605,273

TABLE NO. XXX.

RESULTS OF MAINTENANCE WORKS

Item	Unit							
Earthworks:—								
Cutting, embanking, level crossing, etc. ...	*place*	4,142	*cubic tsubo*	65,361	...	...	...	...
Sodding, leveling, shore protection, retaining walls, etc.	„	727	*square tsubo*	68,895	...	...	...	...
Retaining fences, crib work, etc.	„	204	*ken*	15,140	...	...	...	...
Shore protection, piling, etc.	„	5	*piece*	25	...	...	...	...
Road bridges	„	38	... ...		...	...	...	...
Bridges:—								
Bricklaying	*place*	57	*cubic tsubo*	409	...	...	...	...
Wingwalls, painting, viaducts, etc.	„	1,221	*square tsubo*	110,141	...	...	...	...
Reconstruction & replacement of girders, cooling piers, etc.	„	51	*set*	22	*ft.*	3,364	...	...
Rivetting, pillars, girders for overbridges, etc.	„	184	*piece*	35,090	...	...	...	...
Bridges, abutments, & piers temporarily erected	„	5	*stand*	8	...	...	...	...
Railing, pillars, beams, girders for overbridges, etc.	„	19	*ken*	133	...	...	...	...
Iron girders, pavement stones, etc.	„	11	*piece*	265	...	...	...	...
Wooden bridges repaired, etc.	„	45	... ...		...	...	...	...
Culverts:—								
Bricklaying, etc.	*place*	50	*cubic tsubo*	61	...	...	...	...
Wingwalls, painting, foundation work, etc.	„	1,138	*square tsubo*	3,704	...	...	...	...
Roadbridges repaired, iron girders replaced, etc.	„	28	*set*	123	*ft.*	1,480	...	...
Rivetting, etc.	„	4	*piece*	101	...	...	...	...
Pavement stone	„	1	„	4	...	...	...	...
Underdrains:—								
Bricklaying, laying of siphons, etc.... ...	*place*	22	*cubic tsubo*	146	...	...	...	...
Stone walls, planking, etc....	„	31	*square stubo*	236	...	...	...	...
Earthen pipes laid, side ditches renewed, etc.	„	395	*ft.*	31,208	...	...	...	...
Drainage diverted, etc.	„	6	*ken*	445	...	...	...	...
Girders, etc.	„	33	*set*	37	...	...	...	...
Pillars, poles, etc.	„	55	*piece*	408	...	...	...	...
Tunnels:—								
Bricklaying, obstructions removed, etc. ...	*place*	9	*cubic tsubo*	57	...	...	...	...
Side walls, arches, etc....	„	19	*square tsubo*	1,577	...	...	...	...
Drainage, etc.	„	4	*ft.*	4,461	...	...	...	...
Centres laid	„	8	*set*	333	...	...	...	...

RESULTS OF MAINTENANCE WORKS—*Continued.*

Item	Unit											
Permanent Way:—												
Track deviated, etc.	*place*	293	*m.c.l.*	188.14.81								
Resleepering, sand track laid, etc.	*ft.*	6,481										
Points, crossing, dead ends, etc.	*set*	2,283										
Bridge flooring	*place*	1,049	*ken*	17,181								
Level crossing pavement	,,	1,663	*square tsubo*	2,869								
Scotch blocks renewed	,,	82	*piece*	219								
Tie-plate replaced, etc.	*piece*	442,673										
Reballasting	*m.c.l.*	3,384.22.94	*cubic tsubo*	83,614								
Ballast taken out	*cubic tsubo*	644										
Fushplates renewed, etc.	*piece*	45,499										
Bolts, dog-spikes, crossing rails renewed	,,	3,025,440										
Rails renewed	*pard*	69,951										
Stations:—												
Re-roofing, mortaring, walling, flooring, planking, painting, etc.	*building or place*	4,076	*place*	552	*square tsubo*	127,046						
Point indicators renewed, No. 1 and 2 interlocking apparatus installed	*place*	77	*set*	6	*building*	805	*piece*	6,383				
Signal renewed, water reservoir hoses renewed, etc.	*piece*	133										
Window panes removed, etc.	*building or place*	2,918	*building*	377	*piece*	41,615						
Drain pipes renewed, etc.	*place*	840	*ken*	18,255	*tsubo*	25,316						
Roof remodelled, etc.	,,	1	*building*	1,341	*ft.*	107,093						
Traversers removed or renewed, platform walls removed or renewed, etc.	*building*	119	*place*	557								
Water course removed or deviated, etc.	*ft.*	9,957										
Gravel paved, etc.	*place*	379	*cubic tsubo*	8,359								
Windows built, etc.	*building*	126	*place*	732								
Aqueduct pipes removed, wells sunk, etc	*place*	267										
Stock pens renewed or removed, etc.	,,	19	*piece*	737								
Indicators renewed, etc.	*piece*	2,958										
Interlocking apparatus removed or renewed, etc.	*place*	64	*set*	83								
Miscellanaous Buildings:—												
Window panes, windows, doors, paper screens repaired or renewed	*buiing*	4,033	*piece*	47,120								
Mats renewed or removed	,,	5,251	,,	97,483								
Drain pipes renewed or removed, etc.	*place*	150	*ft.*	11,140								
Gas pipes renewed or removed, etc.	*ft.*	7,179										
Re-roofing, walling, mortaring, flooring, painting, etc.	*building or place*	4,523	*square tsubo*	64,803								
Pillars renewed or strengthened, etc.	*building*	394	*piece*	2,994								
Drainage removed or renewed, etc.	*place*	1,314	*ken*	21,698								
Houses & other buildngs rebuit or taken down	*building*	1,201	*tsubo*	15 443								
Gravel paved, etc.	*place*	11	*cubic tsubo*	124								
Carpets, stones, etc. renewed or removed	*building*	93	*place*	1,306								
Water reservois renewed or removed, etc.	*place*	425										
Shelves renewed or removed	,,	2	*piece*	7								

RESULTS OF MAINTENANCE WORKS—*Continued.*

Item	Unit											
Hotels:—												
Windows, paper screens, window-panes repaired or renewed	*building*	5	*piece*	284								
Walls, floors, pavements repaired	„	5	*place*	10	*square tsubo*	52						
Foundation props, pillars renewed or strengthened	„	1	*piece*	4								
Trees planted	*piece*	11										
Re-roofing	*building*	11	*tsubo*	404								
Fences removed or renewed	*place*	1	*ken*	7								
Drain pipes removed or renewed	„	1	*ft.*	102								
Water pipes removed or renewed	*ft.*	4,824										
Filters for aqueducts temporarily provided.	*place*	1										
Work Shops:—												
Roofs repaired or renewed, roofs mortared or painted, re-flooring, planking, etc.	*building or place*	11	*building*	123	*square tsubo*	8,424						
Board walls and fences repaired or renewed	*place*	14	„	46	*ken*	2,182						
Window panes renewed	*building*	210	*piece*	8,218								
Buildings removed, rebuilt, remodelled, or taken down	„	86	*square tsubo*	2,307								
Chimneys renewed, etc.	„	5	*place*	18								
Sky-lights provided or repaired	*place*	123										
Mats renewed	*building*	2	*piece*	36								
Traversers removed, etc.	*place*	1	*ft.*	54								
Feeder pipes, etc.	*ft.*	84										
Pillers strengthened or renewed	*building*	10	*piece*	286								
Electric Workshops:—												
Buildings removed or remodelled, etc.	*building*	15	*tsubo*	200								
Board walls repaired or taken down, etc.	*place*	1	*building*	1	*ken*	8						
Re-roofing, etc.	*building*	1	*square tsubo*	35								
Feeder pipes removed or renewed	*ft.*	368										
Snow Ploughing (on Tracks), etc.:—												
Snow ploughing	*mile*	137,500										
Snow screens, etc. rebuilt or suppressed	*place*	516	*ft.*	326,740								
Plantations	„	16	*piece*	21,200								
Pruning in plantation	„	10	*square tsubo*	3,563								
Snow Ploughing (on Buildings), etc.:—												
Snow ploughing	*mile*	268,468										
Fencing or fences suppressed	*place*	30	*ft.*	3,149								
Snow arresters provided	„	30	*ken*	3,149								
Fences & Boundaries:—												
Board walls, fences, etc. repaired, renewed or suppressed	*place*	1,434	*ken*	47,270								
Gates repaired or renewed	„	431										
Stone boundaries renewed	„	1	*piece*	20,700								
Cedar shoots planted for fencing purposes.	*piece*	9,245										

TABLE NO. XXXI.

MAINTENANCE WORKS INCIDENTAL TO NATURAL DAMAGES.

Item	Unit				
Earthworks:—					
Cuttings, embankments, grounds, approaches, level crossings, etc.	*place*	421	*cubic tsubo*	20,461	
Sodding, ground-making, retaining walls, etc.	„	186	*square tsubo*	13,717	
Retaining fences, crib work, etc.	„	53	*ken*	6,242	
Roadbridges, etc.	„	3			
Frame-work	„	7	*piece*	125	
Piling for shore protection, etc.	„	5	„	275	
Drainage tunnels, etc.	„	14	*ft.*	292	
Tracks flooded	„	2	*chain*	50	
Earth-bag work on tracks	„	2	„	6,620	
Tracks repaired temporarily	„	8	*mile*	5	
Bridges:—					
Bricklaying, etc.	*place*	8	*cubic tsubo*	273	
Wingwalls, fascine work, etc.	„	113	*square tsubo*	1,778	
Bridges rebuilt	„	10	*ft.*	886	
Pillars, beams & girders for overbridges	„	1	*piece*	9	
Wooden bridges rebuilt	„	1			
Culverts:—					
Bricklaying	*place*	4	*cubic tsubo*	42	
Wingwalls, fascine work, etc.	„	76	*square tsubo*	821	
Underdrains:—					
Drain pipes renewed, etc.	*place*	29	*ft.*	2,711	
Permanent Way:—					
Ballasting	*m. c. l.*	7.64.14	*cubic tsubo*	1,196	
Indicators, etc. renewed or repainted	*piece*	5.199			
Tracks renewed, altered, removed, etc.	*place*	7	*m. c. l.*	33.00.00	
Planking for level crossings, etc.	„	1	*square tsubo*	5	
Re-railing	*yard*	427			
Fish-plates renewed	*piece*	94			
Bottom-plates renewed	*place*	277			
Points or crossings renewed	*set*	2			

MAINTENANCE WORKSINCIDENTAL TO NATURAL DAMAGES—*Continued.*

Item	Unit					
Statations :—						
Re-roofing, mortaring, walling, planking, etc.	*place*	2	*building*	22	*square tsubo*	4,988
Pillars, etc. strengthened or renewed	*building*	11	*piece*	292	*piece*	12
Board walls, fences, etc. renewed	*place*	62	*building*	145	*ken*	2,777
Window panes, doors, etc. renewed	*building*	175	*piece*	2,119	... ...	
Indicators renewed	*piece*	62	... ...		... ...	
Boats attached to dredgers	„	2	... ...		... ...	
Buildings removed, rebuilt or repaired...	*building*	75	*tsubo*	1,093	... ...	
Revetment walls of plasforms removed or rebuilt	*place*	4	*ft.*	620	... ...	
Toilet rooms, etc. rebuilt	„	4	... ...		... ...	
Miscellaneous Buildings :—						
Doors, window-panes, etc. renewed or repaired	*building*	54	*piece*	1,941	... ...	
Re-roofing, walling, mortaring, flooring, etc.	„	382	*square tsubo*	4,373	... ...	
Re-roofing, mortaring, walling, etc.	*place*	337	*building*	96	*ken*	6,802
Buildings repaired or renewed	*building*	79	*tsubo*	509	... ...	
Watch-boxes	*piece*	10	... ...		... ...	
Pillars, etc. renewed or strengthened	*building*	11	*piece*	56	... ...	
Mats renewed	„	19	„	230	... ...	
Curtains repaired	„	2	*piece*	151	... ...	
Wells renewed	*place*	12	... ...		... ...	
Snow Ploughing :—						
Snow screens repaired	*place*	13	*ft.*	1,732	... ...	
Fences and Boundaries :—						
Fences, walls, etc. repaired or renewed	*place*	20	*ken*	536	... ...	
Gates for level crossings removed or rebuilt	„	64	... ...		... ...	
Workshops :—						
Re-roofing, planking, etc....	*building*	14	*square tsubo*	492	... ...	
Drains renewed	„	1	... ...		... ...	
Board walls repaired	*place*	3	*ken*	39	... ...	
Doors, window-panes, flaps, etc. repaired or renewed	*building*	13	*piece*	437	... ...	

TABLE NO. XXXII.

ADDITIONAL WORKS

Item	Unit					
Railway Land :—						
Land acquired for permanent way, stations, buildings, etc.	*se. bu.*	4129.7				
Earthwork :—						
Cuttings, embankments, road-making, rivers, ditches, roads, level crossings, etc.	*cubic tsubo*	34,220				
Retaining walls, pitching, etc. newly or additionally provided	*square tsubo*	127,820				
Retaining fences, crib work, etc.	*ken*	4,905				
Embanking	*ft.*	2,873				
Underground culverts renewed or enlarged	*place*	117				
Piling for shore protection, etc.	*piece*	176				
Bridges :—						
Bridges newly or additionally built	*place*	13	*ft.*	280		
Bridge abutments newly for additionally built	„	34				
Piers rebuilt	*breadth in ft.*	14	*length in ft.*	51		
Single fascine work provided	*place*	1	*square tsubo*	6		
Bridges built	*ft.*	180	*bu*	20		
Fences, boundaries, etc.	*place*	1	*ken*	4		
Culverts :—						
Culverts, etc. rebuilt or built newly or additionally	*place*	22	*ft.*	184		
Revetment walls and pitching built	„	2	*square tsubo*	19		
Bricklaying	„	1	*cubic tsubo*	1		
Abutments newly or additionally built	„	10				
Rolled girders	„	4	*set*	4		
Underdrains :—						
Earthen or wooden pipes, siphons, etc. newly or additionally laid or suppressed	*place*	143	*ft.*	10,231		
Abutments for drainage built	„	1				
Permanent Way :—						
Main tracks & sidings laid or altered	*place*	227	*m. c. l.*	94.16.55		
Points, crossings, dead ends, etc. newly or additionally provided or removed	„	226	*set.*	361		
Ballasting	*m.c.l.*	0.00.68	*place*	57	*cubic tsubo*	70
Indicaters renewed or additionally built	*piece*	3,517				
Planking for level crossing	*place*	24	*square tsubo*	70		
Receptacles for stoppage certificates	„	5	*piece*	3		
Iron or wooden rail braces additionally provided	*piece*	5,726				
Longtitudinal sleepers additionally laid	*place*	1	*ft.*	180		
Tunnels :—						
Tunnels, side walls, inverts, etc.	*ft.*	2,079				
Stations :—						
Main buildings rebuilt or enlarged	*building*	400	*tsubo*	6,218		
Overbridges built	*place*	142				
Platforms, traversers, ash pits, etc. built newly or additionally	„	147	*ft.*	26,276		

ADDITIONAL WORKS—*Continued.*

Item	Unit				
Feeder pipes newly or additionally laid	*ft.*	21,169			
Round houses repaired, goods sheds re-roofed with zink or plate iron	*building*	8	*square tsubo*	633	
Boundaries for coal stages newly or additionally fenced	*ken*	52	,,	177	
Pavement or gravelling for platforms, coal stages provided, etc.	*place*	42	,,	3,110	
Signals, point indicators, etc.	,,	458			
No. 2 interlocking apparatus installed	*set*	165			
Cutting and fill-in work along water reservoirs, etc.	*place*	7	*cubic tsubo*	97	
Ventilation apparatus provided for round houses	*building*	1	*piece*	5	
Cattle races, etc.	*place*	3	,,	3	
Watch-boxes for pointmen, bridges, indicators, etc.	*piece*	273			
Board walls, fences, boundaries, etc.	*place*	117	*ken*	2,845	
Buildings —					
Office buildings, official residences, sheds, etc. newly or additionally built	*building*	211	*tsubo*	2,723	
Wells, water cocks, etc.	*place*	200			
Walls, boundaries, fences, etc.	,,	82	*ken*	1,334	
Earthen pipes laid	*place*	1	*ft.*	90	
Water pipes fitted to official residences, etc.	*ft.*	8,610			
Traversers laid	*piece*	1			
Electric capstans installed	*stand*	1			
Flower garden laid for hotels	*place*	1	*square tsubo*	100	
Workshops :—					
Buildings enlarged, etc.	*building*	21	*tsubo*	648	
Tempering furnaces, electric motors, etc. installed.	*place*	6			
Iron ladders fitted to workshops	*set*	4			
Workshop buildings enlarged	*building*	1	*square tsubo*	25	
Re-flooring, etc.	*place*	1	,,	24	
Ash pits, traversers, etc. provided	,,	3	*ft.*	124	
Feeder pipes addititonally addititonally provided	*ft.*	610			
Electric Buildings :—					
Sand-guards built	*place*	1	*cubic tsubo*	2	
Transformers, converters, generating stations, etc.	*building*	4	*tsubo*	26	
Lathes, electric fans, etc. installed	*place*	6			
Snow Ploughing :—					
Snow-screens provided	*place*	4	*ft.*	594	
Plantation for snow-guarding purposes	*piece*	1,000			
Fences & Boundaries :—					
Fences	*place*	67	*ken*	3,466	
Gates built	,,	48			
Wooden or stone boundaries provided	*piece*	58			

TABLE NO. XXXIII.

ADDITIONAL WORKS INCIDENTAL TO NATURAL DAMAGES.

Item	Unit			
Earthwork :—				
Railway land	*se. bu.*			762.5
Cuttings, embankments, gronnd-making, etc.	*cubic tsubo*	521	... ...	
Earthen pipes laid, etc.	*ft.*	64	... ...	
Road bridges built, etc.	*place*	6	... ...	
Pitching, revetment walls, shore protection, etc. constructed	*square tsubo*	3,017	... ...	
Fences, boundaries, etc. for drainages	*ken*	830	... ...	
Cattle race	*place*	9	... ...	
Bridges :—				
Bridges enlarged, etc.	*place*	3	*ft.*	60
Bridges enlarged, etc.	*ft.*	310	*bu.*	4
Bridge abutments rebuilt or enlarged	*place*	11	... ...	
Girders renewed	,,	3	*set*	3
Culverts :—				
Open culverts built	*place*	1	*ft.*	8
Wingwalls additionally built	,,	1	*square tsubo*	4
Underdrains :—				
Earthen pipes laid newly or additionally	*place*	6	*ft.*	119
Drainage laid	,,	1	*cubic tsubo*	1
Stations :—				
Goods sheds, etc. repaired or enlarged	*place*	5	*ft.*	90
Buildings :—				
Offices and accessory buildings enlarged or rebuilt	*place*	5	*tsubo*	166
Board walls of official residences renewed or enlarged	,,	8	*ken*	52

TABLE NO. XXXIV.

IMPROVEMENT WORKS

Item	Unit			
Railway land:—				
Railway land for permanent way, stations, workshops, etc.	*se. bu.*	19698.3	... ...	
Earthwork:—				
Cutting, embanking, ground-making, etc.	*cubic tsubo*	846,210	... ...	
Foundation filling work, etc.	*square tsubo*	140,857	... ...	
Drains, side drains, etc.	*ken*	26,422	... ...	
Earthen pipes laid	*ft.*	18,440	... ...	
Road bridges, etc. built	*place*	84	... ...	
Piling for shore protection, moor-chocks, etc.	*piece*	310	... ...	
Bridges:—				
Bridges, etc. built or enlarged	*place*	88	*ft.*	15,955
Coaling piers, road bridges, etc.	*ft.*	740	... ...	
Bridges, etc. built or enlarged	,,	26,717	*bu*	400
Abutments, piers, etc. built or enlarged	*place*	607	... ...	
Timber girders replaced by iron girders, etc.	,,	149	*set*	293
Rail girders laid	*set*	4	... ...	
Bridges strengthened...	*piece*	15	... ...	
Iron girders painted	*square tsubo*	4,722	... ...	
Culverts:—				
Culverts, open culverts, etc. newly or additionally built	*place*	218	*ft.*	151
Abutments newly or additionally built...	,,	183	... ...	
Abutments, etc. newly or additionally built	,,	8	*set*	8
Rolled beams renewed	*set*	47	... ...	
Wooden girders replaced by iron girders, etc.	*place*	293	*piece*	312
Pitching, etc.	,,	2	*square tsubo*	13
Underdrains:—				
Dains & earthen pipes laid	*place*	509	*ft.*	23,835
Siphons newly or additionally laid	*ft.*	560	... ...	
Brick or stone reservoirs...	*place*	8	... ...	

IMPROVEMENT WORKS—*Continued.*

Item	Unit			
Tunnels :—				
Pilot tunnels, reversed arches, side walls, etc.	*ft.*	7,662		
Tunnel boring	*cubic tsubo*	4,367		
Permanent Way :—				
Main tracks & sidings laid or extended, rails or sleepers renewed, etc.	*place*	759	*m.c.l.*	1,187.75.86
Temporary tracks laid	*m.c.l.*	2,22.90		
Points, crossings, slips, & diamond crossings newly or additionally laid	*place*	733	*set*	3,017
Dead ends, etc, newly or additionally provided	„	301	*piece*	852
Ballasting, etc.	„	6	*ft.*	1,356
Roadbed strengthened, etc.	*m.c.l.*	20.60.75	*cubic tsubo*	762
Ballasting	*place*	157	„	52,053
Ballast renewed	*cubic tsubo*	21,517		
Indicators set up	*piece*	702		
Planking for level crossings, etc.	*place*	93	*square tsubo*	359
Planking for bridges, etc.	„	12	*ken*	681
Stations :—				
Main and accessory buildings, shelter and goods sheds, storehouses newly or additionally built	*building*	813	*tsubo*	26,596
Watch boxes renewed or newly built	*piece*	670		
Watch boxes, etc. built	*place*	290		
Traversers, ash pits, etc. newly or additionally built	„	888	*ft.*	189,417
Water pipes, etc. provided	*ft.*	80,388		
Coal stages, ballasting, pitching, flooring, etc. for platforms	*place*	156	*square tsubo*	14,183
Boundaries for coal stages	*square tsubo*	2,232		
Signals, indicators, etc. installed	*piece*	1,340		
Interlocking apparatus, etc. installed	*set*	1,005		
Water reservoirs, etc.	*cubic tsubo*	1,170		
Board walls, fences, etc.	*ken*	5,296		
Buildings :—				
Official and other buildings, official residences, etc.	*tsubo*	7,754		
Board walls, fences, etc.	*ken*	3,510		
Drain pipes, etc.	*place*	1,274		
Feeder pipes, gas pipes, etc.	*ft.*	6,980		
Carpets, blinds, etc. renewed	*square tsubo*	187		

IMPROVEMENT WORKS—*Continued.*

Item	Unit			
Workshops :—				
Workshops and accessory buildings, etc.	*tsubo*	10,101		
Wagon traversers, etc.	*place*	25		
Fences, boundaries, etc. newly or additionally built	*ken*	893		
Gas pipes, rain pipes, etc. laid	*ft.*	13,119		
Iron poles, girders, etc. newly provided	*piece*	42		
Water reservoirs, etc.	*cubic tsubo*	2,021		
Electrical Buidings :—				
Generating or charging stations rebuilt or additionally built	*tsubo*	948		
Electric rooms painted, etc.	*square tsubo*	1,775		
Discharging water courses	*ft.*	730	*cubic tsubo*	299
Settling-ponds, filter beds, wells, etc.	*cubic tsubo*	732		
Distributing board shelves, ventilating netting, etc.	*place*	38		
Iron covers of iron tube shafts	*ft.*	578		
Fire Prevention :—				
Re-roofing	*tsubo*	72,818		
Snow Ploughing :—				
Snow guard plantation, etc.	*square tsubo*	926,052		
Young shoots planted for snow-guard purposes	*piece*	479,270		
Snow-screens additionally built	*ken*	465	*ft.*	250
Fences and Boundaries :—				
Fences and hedges renewed or additionally built	*ken*	24,008		
Gates or gate flaps renewed or additionally built	*place*	64		
Stone or wooden fences or boundaries newly or additionally built	*piece*	2,268		

TABLE

NUMBER OF STATIONS,

Right

Line	Item	Mileage worked		Permanent way		Station ground	
		Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year
		m.	*m.*	*tsubo*	*tsubo*	*tsubo*	*tsubo*
Eastern Div. Sup't. Office	North-eastern line	582.3	.2	4,315,511	72,840	1,140,351	52,090
	Joban line	216.2	—	1,791,574	6,527	462,403	202
	O-U line	305.9	—	2,283,073	9,007	505,059	3,124
	Gan-Etsu line	55.6	—	325,645	—	121,596	1,833
	Takasaki line & Shin-Etsu line	73.2	—	430,451	9,545	149,224	1,652
	Sobu line	126.9	14.3	790,922	51,130	252,929	44,639
	Total	1,360.1	14.5	9,937,176	149,049	2,631,562	103,540
Central Div. Sup't. Office	Tokaido line	320.3	5.6	3,522,075	150,882	767,200	78,528
	Yamanote line & Kansai line	17.1	—	119,191	3	91,008	2,136
	Yokohama line	27.6	1.2	255,980	—	80,647	—
	Central line	19.57	5.2	2,949,368	43,405	540,489	8,030
	Shin-Etsu line	196.7	9.2	1,479,868	1,781	303,904	2,733
	Hokuroku line	224.4	5.1	1,493,723	31,779	355,569	24,734
	Total	1,081.8	26.3	9,820,205	227,850	2,138,817	116,161
Western Div. Sup't. Office	Tokaido line	99.4	—	769,335	△ 6	◎ 19,251 556,139	—
	San-yo line	380.1	.5	3,328,259	866	744,216	—
	San-in line	130.4	32.8	1,056,596	252,729	215,280	40,646
	Fukuchiyama line & Harima line	114.6	—	757,708	—	152,594	—
	Kansai line	308.2	8.9	1,979,949	5,939	527,252	12,342
	Sanuki line	27.8	—	143,220	22	35,467	2,261
	Tokushima line	21.5	—	100,377	9	37,491	—
	Total	1,082.0	42.2	8,135,444	259,559	◎ 19,251 2,268,439	55,549
Kyushu Div. Sup't. Office	Kagoshima line	269.7	△ 8.1	2,004,390	16,887	903,500	52,860
	Nagasaki line	143.7	2.0	881,177	37,328	343,687	△ 26,121
	Hoshu line	112.3	16.0	729,611	124,453	337,925	55,357
	Chikuho line	70.8	△ .2	501,059	73,560	337,425	△ 38,996
	Total	596.5	9.7	4,116,237	252,228	1,922,537	43,100
Hokkaido Div. Sup't. Office	Hakodate line	289.1	—	8,386,943	9,576	1,574,996	44,271
	Muroran line	116.9	—	2,198,303	17,741	835,082	24,777
	Rumoi line	31.1	—	458,510	—	179,063	—
	Kushiro line	192.1	—	4,626,707	—	731,243	—
	Teshio line	69.6	22.4	1,510,332	695,180	289,104	67,224
	Abashiri line	87.0	38.9	2,198,957	1,305,169	409,626	93,441
	Total	785.8	61.3	19,379,752	2,027,666	4,019,114	229,713
Yonago Branch Office	San-in main line	127.1	19.8	882,719	197,444	265,592	33,183
	Sakai line	10.8	—	49,136	32,576	—	—
	Total	137.9	19.8	931,855	230,020	265,592	33,183
Grand total		5,044.1	173.8	52,320,669	3,146,372	◎ 19,251 13,246,061	581,246

NO. XXXV.

TRAFFIC MILEAGE, ETC.

of way						Permanent way			
Works ground		Offices and official residence		Miscellaneous		Length of tracks, sidings, etc.		Switches and crossings	
Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year
tsubo	*tsubo*	*tsubo*	*tsubo*	*tsubo*	*tsubo*	*m. c.*	*m. c.*	*set*	*set*
58,278	—	17,761	—	195,938	381	854.59	—×	12 1,912	152
—	—	3,664	—	379	211	324.47	—×	8× 904	8 222
44,405	—	11,217	—	82,920	10,036	376.38	—×	3× 722	2 431
—	—	—	—	22,843	21,437	65.52	—	119	—
—	—	35	—	20,963	868	100.11	—×	2× 264	2 3
2,117	—	1,363	—	28,036	—	187.21	—	466	69
104,800	—	34,040	—	351,157	32,933	1,908.68	86.15×	35× 4,387	12 877
158,031	79,581	14,493	3,551	36,723	6,850	748.49	—	1,761	142
—	—	246	121	—	—	38.58	—	402	58
—	—	—	—	2,878	—	37.22	—	127	2
—	—	—	—	943	52	397.76	—	873	43
14,710	—	—	—	196	—	256.74	—	539	92
8,710	—	650	—	7,113	—	278.10	—	537	41
131,451	79,581	15,389	3,672	47,853	6,902	1,757.49	68.33	4,249	378
15,558	—	21,663	370	6,413	—	258.31	—×	15△× 964	2 76
63,385	—	22,799	—	488	297	539.69	—×	31× 1,290	30 22
—	—	493	—	—	—	169.39	—×	2 322	111
9,771	—	6,104	—	8,966	—	135.05	—	239△	1
7,232	—	11,363	—	11,087	—	420.59	—×	8× 1,071	4 55
449	—	—	—	57	—	37.30	—	141▲	15
—	—	530	—	124△	918	27.40	—	68△	6
96,395	—	62,952	370	42,135△	621	1,588.33	57.23×	56× 4'095	32 242
33,722	736	34,088	2,663	126,815	60,471	410.69	—×	20× 1,104	10 94
—	—	962	—	21,751△	741	182.54	—×	2× 409	1 37
10,120	—	4,636	—	6,585△	3	157.29	—×	4× 476	4 76
4,265△	138	8,231	—	25,291	2,119	160.11	—×	6× 742	1 11
48,107	598	47,917	2,663	180,442	61,846	911.03	43.23×	32× 2,731	16 218
241,252	—	38,018△	273	72,589	668	461.42	—×	2 1,185	89
—	—	30,482	—	3,050	—	180.30	—	484	14
—	—	—	—	—	—	41.02	—	92	2
—	—	—	—	1,146,093	—	224.47	—	310	26
—	—	—	—	234,742	—	79.18	—	98	33
—	—	—	—	43,784	—	99.04	—	123	64
241,252	—	68,500△	273	1,500,258	668	1,085.63	89.20×	2 2,292	228
—	—	—	—	—	—	158.32	—	279	55
—	—	—	—	—	—	14.19	—	29	—
—	—	—	—	—	—	172.51	26.61	308	55
622,005	80,179	228,748	6,432	2,121,845	101 728	7,424.27	371.46×	125× 18,062	60 1,998

NUMBER OF STATIONS,

Line	Item	Stations, 1st cl.		Stations, 2nd cl.		Stations, 3rd cl.	
		Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year
Eastern Div. Sup't. Office	North-Eastern line	8	—	—	—	12	—
	Joban line	2	—	—	—	5	—
	O-U line	—	—	3	—	4	—
	Gan-Etsu line	—	—	—	—	1	—
	Takasaki line & Shin-Etsu line	1	—	—	—	2	1
	Sobu line	1	—	1	—	2	—
	Total	12	—	4	—	26	1
Central Div. Sup't. Office	Tokaido line	2	—	4	—	4	—
	Yamanote line & Kansai line	1	—	—	—	—	—
	Yokohama line	—	—	—	—	1	—
	Central line	—	—	4	—	2	—
	Shin-Etsu line	—	—	2	—	3	—
	Hokuroku line	—	—	2	—	6	—
	Total	3	—	12	—	16	—
Western Div. Sup't. Office	Tokaido line	3	—	—	—	1	—
	San-yo line	5	—	4	—	1	—
	San-in line	—	—	1	—	2	—
	Fukuchiyama line & Harima line	—	—	—	—	2	—
	Kansai line	1	—	1	—	5	—
	Sanuki line	—	—	—	—	1	—
	Tokushima line	—	—	1	—	—	—
	Total	9	—	7	—	12	—
Kyushu Div. Sup't. Office	Kagoshima line	3	—	6	1	8	△ 1
	Nagasaki line	—	—	2	—	4	—
	Hoshu line	—	—	3	1	1	1
	Chikuho line	2	—	—	—	—	—
	Total	5	—	11	2	13	—
Hokkaido Div. Sup't. Office	Hakodate line	5	—	3	—	7	—
	Muroran line	1	—	2	—	2	—
	Rumoi line	—	—	—	—	1	—
	Kushiro line	—	—	1	—	4	—
	Teshio line	—	—	—	—	1	—
	Abashiri line	—	—	—	—	2	—
	Total	6	—	6	—	17	—
Yonago Branch Office	San-in main line	—	—	—	—	4	—
	Sakai line	—	—	—	—	—	—
	Total	—	—	—	—	4	—
Grand total		35	—	40	2	88	1

TRAFFIC MILEAGE, ETC.—*Continued.*

Stations									
Stations, 4th cl.		Stations, 5th cl.		Stations, 6th cl.		Signal stations		Junction stations	
Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year
39	—	78	3	—	—	5	1	1	—
17	—	39	1	—	—	1	1	1	—
13	—	39	2	—	—	1	—	—	—
1	—	13	—	—	—	—	—	—	—
4 △	1	13	—	—	—	3	—	—	—
12	—	29	5	—	—	1	—	—	—
86 △	1	211	11	—	—	11	2	2	—
12	—	63	1	—	—	14	5	1	—
3	—	12	1	—	—	—	—	—	—
—	—	7	—	—	—	—	—	1	—
6	—	65	1	—	—	1	—	—	—
1	—	46	4	—	—	1	1	—	—
7	—	46	3	—	—	1	—	—	—
29	—	239	10	—	—	17	6	2	—
6	—	20	—	3	—	9	—	1	1
17	—	77	3	—		1	1	—	—
8	—	20	7	—	—	—	—	—	—
2	—	36	—	—	—	—	—	—	—
18	1	80	1	—	—	2	1	—	—
1	—	10	—	—	—	—	—	—	—
1	—	11	—	—	—	—	—	—	—
53	1	254	11	3	—	12	2	1	1
8	1	46 △	1	—	—	2	—	△	1
7	—	32	1	—	—	—	—	—	—
5	—	37	5	—	—	—	—	—	—
2	—	46 △	1	—	—	6	—	3	—
22	1	161	4	—	—	8	—	3 △	1
13	—	45	1	—	—	—	—	—	—
7	—	18	—	—	—	—	—	—	—
—	—	7	—	—	—	—	—	—	—
1	—	26	—	—	—	2	1	—	—
1	—	11	4	—	—	—	—	—	—
—	—	10	5	—	—	—	—	—	—
22	—	117	10	—	—	2	1	—	—
1	—	27	4	—	—	—	—	—	—
1	—	2	—	—	—	—	—	—	—
2	—	29	4	—	—	—	—	—	—
214	1	1,011	50	3	—	50	11	8	—

NUMBER OF STATIONS,

Line	Item	Bridges							
		Archs				Girder			
		Year under review		Inc. or dec. (△) against preceding year		Year under review		Inc. or dec. (▲) against preceding year	
			ft.		ft.		ft.		ft.
Eastern Div. Sup't. Office	North Eastern line	25	434	—	—	12	9,045	—	—
	Joban line	11	235	—	—	6	9,139	—	—
	O-U line	22	330	2	30	1	390	—	—
	Gan-Etsu line	3	46	—	—	1	1,458	—	—
	Takasaki line & Shin-Etsu line.	17	949	—	—	2	1,212	—	—
	Sobu line	5	65	—	—	1	599	—	—
	Total	83	2,059	2	30	23	21,843	—	—
Central Div. Sup't. Office	Tokaido line	26	465	—	—	18	16,528	—	150
	Yamanote line & Kansai line	2	27	—	—	—	—	—	—
	Yokohama line	1	15	—	—	—	—	—	—
	Central line	53	1,115	—	—	16	4,255	—	—
	Shin-Etsu line	9	140	3	45	1	1,543	—	—
	Hokuroku line	15	294	1	15	2	3,858	—	—
	Total	106	2,056	4	60	37	26,184	—	150
Western Div. Sup't. Office	Tokaido line	20	2,753	—	—	6	16,214	—	—
	San-yo line	29	704	4	154	—	—	—	—
	San-in line	7	115	4	62	2	585	—	—
	Fukuchiyama line & Harima line.	—	—	—	—	3	490	—	—
	Kansai line	18	262	—	—	6	9,338	—	—
	Sanuki line	1	12	—	—	—	—	—	—
	Tokushima line	—	—	—	—	—	—	—	—
	Total	75	3,846	8	216	17	26,627	—	—
Kyushu Div. Sup't. Office	Kagoshima line	48	1,034	△ 7	△ 415	20	8,189	—	—
	Nagasaki line	31	667	—	—	4	615	—	—
	Hoshu line	13	240	* 4	* 65	6	1,769	—	—
	Chikuho line	4	88	—	—	1	1,278	—	—
	Total	96	2,029	△ 3	△ 350	31	11,851	—	—
Hokkaido Div. Sup't. Office	Hakodate line	—	—	—	—	11	3,263	—	—
	Muroran line	1	15	—	—	2	720	—	—
	Rumoi line	1	20	—	—	1	325	—	—
	Kushiro line	4	70	1	12	3	1,109	—	—
	Teshio line	—	—	—	—	1	292	—	—
	Abashiri line	1	12	—	—	—	—	—	—
	Total	7	117	1	12	18	5,709	—	—
Yonago Branch Office	San-in main line	9	207	4	141	—	—	—	—
	Sakai line	—	—	—	—	—	—	—	—
	Total	9	207	4	141	—	—	—	—
Grand total		374	10,314	16	109	126	92,214	—	150

TRAFFIC MILEAGE, ETC.—*Continued.*

Others				Culverts							
				Arch & box				Open			
Year under review		Inc. or dec. (△) against preceding year		Year under review		Inc. or dec. (△) against preceding year		Year under review		Inc. or dec. (△) against preceding year	
	ft.		*ft.*		*ft.*		*ft.*		*ft.*		*ft.*
432	32,672	5	113	153	914	1	6	435	2,997	—	2
247	17,149	—	—	68	354	—	—	191	1,558	—	—
288	25,387 △	1	648	180	999	—	—	500	3,008 △	1 △	8
34	3,865	—	—	8	54	—	—	91	936 △	4	2
34	3,149	—	—	20	108	1	3	88	518	— △	8
71	7,010	21	845	38	279	6	22	187	1,374	23	124
1,106	89,232	25	1,606	467	2,708	8	31	1,492	10,391	18	112
377	30,630	10	226	219	1,258	3	11	492	3,104	22	127
16	417	—	—	9	41	—	—	6	44	—	—
26	1,028	—	—	9	50	—	—	28	157	—	—
287	24,592	15	1,067	207	1,130	1	7	386	2,279	7	43
185	11,419	13	1,119	95	570	6	41	349	2,067	13	78
390	27,810	5	74	80	433	2	14	751	4,461	13	93
1,231	95,896	43	2,486	619	3,482	12	73	2,012	12,112	55	341
180	30,319 △	2 △	84	231	1,710	—	—	136	2,027	—	—
658	56,193	2	363	185	1,289	5	35	908	7,355	11	88
246	19,968	57	2,904	78	573	11	76	269	1,794	50	368
142	8,121	—	—	22	143	—	—	306	1,909	—	11
560	33,325	21	1,678	114	609	4	13	647	4,691	26	183
40	2,109	—	—	10	141	—	—	82	474	—	—
37	3,647	—	—	2	14	—	—	55	376	—	—
1,863	153,682	78	4,861	643	4,479	20	124	2,403	18,626	87	650
411	26,698	*△ 3 △ 13	*△ 102 △ 525	411	2,033 △	1	96	492	3,052 △	14 △	124
304	12,368	*△ 1 3	*△ 30 37	165	730	5	17	370	2,267	8	57
218	12,955	46	1,471	72	403	4	26	256	1,613	27 *	37 172
127	8,908	5	1,217	42	206	1	10	171	1,247	2	21
1,060	54,929	37	2,068	690	3,372	9	149	1,289	8,179	23	163
244	10,595	2	65	122	486	15	59	247	1,808	7	48
75	6,379	4	251	56	207	—	—	30	194	3	12
33	2,338	—	—	15	58	—	—	13	85	—	—
185	11,233	1	128	52	234	—	—	186	1,102 △	2 △	20
88	4,955	48	2,899	17	75	5	26	39	248	1	6
94	5,120	56	1,972	14	68	2	12	38	274	1	6
719	40,620	111	5,315	266	1,128	22	97	553	3,711	10	52
113	14,168	17	3,047	66	433	25	177	169	1,148	15	112
2	60	—	—	—	—	—	—	2	10	—	—
115	14,228	17	3,047	66	433	25	177	171	1,158	15	112
6,144	448,587	311	19,383	2,751	15,602	96	651	7,920	54,177	208	1,430

NUMBER OF STATIONS,

Line	Item	Aqueduct over-bridges		Overhead roadbridges	
		Year under review	Inc. or dec.(△) against preceding year	Year under review	Inc. or dec.(△) against preceding year
		ft.	*ft.*	*ft.*	*ft*
Eastern Div. Sup't. Office	North Eastern line	2	—	27	△ 2
	Joban line	4	—	22	—
	O-U line	12	—	10	—
	Gan-Etsu line	1	—	2	1
	Takasaki line & Shin-Etsu line	—	—	3	—
	Sobu line	—	—	18	—
	Total	19	—	82	△ 1
Central Div. Sup't. Office	Tokaido line	4	—	27	—
	Yamanote line & Kansai line	—	—	14	—
	Yokohama line	—	—	5	—
	Central line	9	1	38	1
	Shin-Etsu line	9	—	11	—
	Hokuroku line	—	—	2	1
	Total	22	1	97	2
Western Div. Sup't- Office	Tokaido line	—	—	12	1
	San-yo line	3	—	36	2
	San-in line	—	—	4	—
	Fukuchiyama line & Harima line	2	—	6	—
	Kansai line	7	—	42	—
	Sanuki line	—	—	—	—
	Tokushima line	—	—	—	—
	Total	12	—	100	3
Kyushu Div. Sup't. Office	Kagoshima line	1	—	19	—
	Nagasaki line	1	—	15	—
	Hoshu line	1	—	21	2
	Chikuho line	—	—	6	—
	Total	3	—	61	2
Hokkaido Div. Sup't. Office	Hakodate line	—	—	10	—
	Muroran line	—	—	2	2
	Rumoi line	—	—	—	—
	Kushiro line	—	—	—	—
	Teshio line	—	—	—	—
	Abashiri line	—	—	—	—
	Total	—	—	12	2
Yonago Branch Office	San-in main line	2	1	6	—
	Sakai line	—	—	—	—
	Total	2	1	6	—
Grand total		58	2	358	8

TRAFFIC MILEAGE, ETC.—*Continued.*

Piers				Coaling piers				Tunnels				Overhead drains	
Year under review		Inc. or dec. (△) against preceding year		Year under review		Inc. or dec. (△) against preceding year		Year under review		Inc. or dec. (△) against preceding year		Year under review	Inc. or dec. (△) against preceding year
	ft.		*ft.*		*ft.*		*ft.*		*ft.*		*ft.*		
5	152	—	—	2	96	—	—	22	18,382	—	—	6	—
1	18	1	18	3	1,444	△ 3	△ 599	42	28,006	—	△ 100	2	—
—	—	—	—	1	70	—	—	53	44,992	—	△ 559	6	—
—	—	—	—	—	—	—	—	6	7,654	—	—	4	—
—	—	—	—	—	—	—	—	26	14,645	—	—	1	—
—	—	—	—	—	—	—	—	2	3,240	—	—	—	—
6	170	1	18	6	1,610	△ 3	△ 599	151	116,919	—	△ 659	19	—
5	317	—	—	18	16,528	—	150	39	47,784	1	3,047	1	—
—	—	—	—	—	—	—	—	1	121	—	—	—	—
—	—	—	—	—	—	—	—	3	1,729	—	—	1	—
—	—	—	—	16	4,255	—	—	108	135,188	—	—	11	6
—	—	—	—	1	1,543	—	—	19	15,270	5	6,411	37	—
—	—	—	—	2	3,858	—	—	23	27,228	1	76	2	△ 1
—	317	—	—	37	26,184	—	150	193	227,320	7	9,534	52	5
6	16,214	—	—	1	450	—	—	9	8,245	—	—	—	—
—	—	—	—	3	151	—	—	59	37,684	—	—	16	—
2	585	—	—	—	—	—	—	49	49,959	18	32,353	4	—
3	490	—	—	—	—	—	—	25	17,514	—	—	2	—
6	9,338	—	—	2	60	—	—	26	14,278	1	1,320	22	—
—	—	—	—	2	114	2	114	—	—	—	—	2	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—
17	26,627	—	—	8	775	2	114	168	127,380	19	33,673	46	—
3	186	1	102	4	4,643	—	—	63	60,327	—	—	3	△ 1
—	—	—	—	8	3,442	—	—	22	17,825	—	—	6	△ 1
—	—	—	—	—	—	—	—	10	5,773	2	1,379	6	—
—	—	—	—	2	2,239	—	—	1	244	—	—	1	—
3	186	1	102	14	10,324	—	—	96	84,169	2	1,379	16	△ 2
6	2,009	1	1,141	6	6,740	6	6,740	17	20,583	—	10	—	—
1	120	—	—	8	9,884	5	4,998	7	6,157	—	—	—	—
—	—	—	—	—	—	—	—	2	1,887	—	—	—	—
1	377	—	—	—	—	—	—	8	6,345	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—
8	2,506	1	1,141	14	16,624	11	11,738	34	34,972	—	10	—	—
—	—	—	—	—	—	—	—	47	48,602	19	25,203	17	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	47	48,602	19	25,203	17	—
30	3,954	5	1,375	126	92,214	—	150	679	639,362	47	69,740	150	3

NUMBER OF STATIONS,

Line	Item	Drains		Earthenware pipes	
		Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year
Eastern Div. Sup't. Office	North Eastern line	218	3	5,806	8
	Joban line	98	2	2,346	△ 2
	O-U line	479	△ 1	4,571	△ 15
	Gan-Etsu line	147	△ 2	945	2
	Takasaki line & Shin-Etsu line	148	2	812	2
	Sobu line	89	6	1,871	289
	Total	1,179	10	16,351	284
Central Div. Sup't. Office	Tokaido line	512	15	2,500	35
	Yamanote line & Kansai line	12	—	91	△ 1
	Yokohama line & Kansai line	10	—	475	2
	Central line	448	15	2,223	31
	Shin-Etsu line	213	17	2,721	91
	Hokuroku line	425	59	3,482	56
	Total	1,620	106	11,492	214
Western Div. Sup't. Office	Tokaido line	177	—	905	—
	San-yo line	564	2	7,529	△ 6
	San-in line	254	29	1,736	341
	Fukuchiyama line & Harima line	271	1	2,113	1
	Kansai line	547	7	6,901	△ 2
	Sanuki line	34	—	671	—
	Tokushima line	48	—	255	—
	Total	1,895	39	20,110	334
Kyushu Div. Sup't. Office	Kagoshima line	632	12	2,811	△ 124
	Nagasaki line	273	12	2,737	25
	Hoshu line	246	108	1,852	249
	Chikuho line	168	△ 17	896	△ 26
	Total	1,319	115	8,296	124
Hokkaido Div. Sup't. Office	Hakodate line	224	6	1,205	139
	Muroran line	25	10	153	14
	Rumoi line	6	—	123	3
	Kushiro line	33	△ 13	266	△ 1
	Teshio line	20	19	179	138
	Abashiri line	9	4	187	79
	Total	317	26	2,113	372
Yonage Branch Office	San-in main line	61	27	1,774	108
	Sakai line	12	—	159	—
	Total	73	27	1,933	108
Grand total		6,403	323	60,295	1,436

TRAFFIC MILEAGE, ETC.—*Continued.*

Station Buildings

Main buildings				Platform shelters				Loading platform shelter and good sheds				Engine sheds			
Year under review		Inc. or dec. (△) against preceding year		Year under review		Inc. or dec. (△) against preceding year		Year under review		Inc. or dec. (△) against preceding year		Year under review		Inc. or dec. (△) against preceding year	
	tsubo		*tsubo*		*tsubo*		*tsubo*		*tsubo*		*tsubo*		*tsubo*		*tsubo*
145	9,658	△ 4	148	180	9,851	9	295	205	15,320	9	759	15	5,145	—	—
67	3,257	2	△ 152	69	2,663	—	4	72	6,779	△ 1	13	4	1,349	—	—
60	3,625	3	93	62	1,836	3	72	60	3,287	△ 1	55	12	2,242	—	△ 36
15	549	—	—	7	25	△ 1	△ 3	7	356	—	—	2	143	—	—
23	1,087	—	6	25	1,972	1	112	28	1,344	1	34	5	978	1	—
46	2,238	5	177	57	2,115	7	75	66	5,034	5	155	6	670	—	△ 2
356	20,414	6	272	400	18,462	19	555	438	32,120	13	1,016	44	10,527	△ 1	△ 38
88	6,584	1	97	130	9,915	4	926	110	10,794	3	316	15	3,573	3	1,248
19	814	1	9	32	1,707	2	47	14	1,183	—	—	2	344	—	—
8	534	—	—	9	130	—	—	8	154	—	—	1	133	—	—
75	3,853	—	16	95	2,866	1	51	84	3,207	1	235	10	1,748	1	30
51	2,662	3	160	62	2,613	4	24	44	1,655	3	66	10	1,131	—	—
62	3,553	3	146	69	2,898	1	25	56	3,936	9	104	5	987	△ 1	△ 88
303	18,900	8	428	397	20,129	12	1,073	316	20,929	10	721	43	7,916	3	1,190
33	2,850	—	△ 81	48	7,770	1	160	60	14,699	1	439	6	1,283	—	—
106	7,698	3	214	134	5,940	2	47	173	10,097	8	462	12	2,747	—	—
34	2,549	6	360	46	1,578	11	395	35	1,118	8	166	7	979	1	171
43	931	—	△ 16	58	731	2	97	37	1,932	△ 2	△ 75	2	302	—	—
109	5,164	3	99	149	7,446	5	558	97	5,018	6	404	10	1,662	△ 1	△ 165
14	977	—	8	17	710	—	15	13	452	△ 1	△ 14	2	264	△ 1	△ 25
13	435	—	4	3	103	—	—	14	541	1	35	2	305	—	—
352	20,604	12	588	455	24,272	21	1,272	429	33,857	21	1,417	41	7,542	△ 1	19
73	5,673	△ 3	754	70	5,543	9	2,300	74	4,143	3	880	14	2,209	—	339
45	2,233	1	304	30	1,695	△ 1	△ 68	32	1,168	△ 4	72	3	382	—	△ 18
43	2,174	7	656	22	452	4	128	24	491	6	154	3	187	△ 1	△ 31
47	1,031	—	34	11	684	1	△ 6	24	643	2	70	4	404	1	22
208	11,111	5	1,748	133	8,374	13	2,354	154	6,445	7	1,146	24	3,182	—	312
72	5,115	2	364	73	3,292	3	67	91	7,083	5	317	16	2,931	—	324
30	1,783	—	24	23	250	—	—	28	1,425	—	27	5	896	—	—
8	427	—	—	7	37	—	—	9	264	1	120	1	135	—	—
34	1,795	1	197	32	163	3	32	36	1,459	1	113	7	1,082	—	373
13	630	4	101	12	49	4	21	13	394	3	37	4	266	1	71
12	528	5	220	12	70	5	35	12	180	5	96	3	461	2	293
169	10,278	12	906	159	3,861	15	155	189	10,805	15	710	36	5,771	3	1,061
32	2,486	4	186	32	276	7	53	38	696	4	48	3	726	1	206
3	220	—	—	3	28	—	—	4	268	—	—	—	—	—	—
35	2,706	4	186	35	304	7	53	42	964	4	48	3	726	1	206
1,423	83,113	47	4,128	1,579	75,402	87	5,462	1,568	105,120	70	5,058	191	35,664	7	2,712

NUMBER OF STATIONS,

Line	Item	Station							
		Other buildings				Platforms			
		Year under review		Inc. or dec. (△) against preceding year		Year under review		Inc. or dec. (△) against preceding year	
			tsubo		*tsubo*		*ft.*		*ft.*
Eastern Div. Sup't. Office	North-Eastern line	1,160	10,156	△ 23	514	267	134,243	5	3,599
	Joban line	403	3,237	△ 13	521	126	71,287	2	1,203
	O-U line	431	4,463	1	△ 162	108	48,805	4	920
	Gan-Etsu line	73	418	△ 12	△ 21	26	9,320	—	54
	Takasaki line & Shin-etsu line	133	1,516	2	29	40	23,010	1	100
	Sobu line	192	1,357	12	3	89	41,037	13	5,451
	Total	2,392	21,147	△ 33	884	656	327,702	25	11,327
Central Div. Sup't. Office	Tokaido line	737	7,706	42	817	157	91,510	△ 3	1,498
	Yamanote line & Kansai line	184	1,936	7	52	30	10,475	2	520
	Yokohama line	35	309	—	—	17	8,366	—	—
	Central line	500	4,228	2	10	133	56,419	—	—
	Shin-Etsu line	354	2,536	11	37	94	37,117	4	1,650
	Hokuroku line	343	2,715	△ 1	△ 8	111	51,149	4	1,625
	Total	2,153	19,430	61	908	542	255,036	7	5,293
Western Div. Sup't. Office	Tokaido line	324	3,533	10	△ 33	59	35,922	—	—
	San-yo line	759	7,841	△ 1	△ 372	197	95,524	3	3,317
	San-in line	193	1,609	43	133	59	49,373	13	7,795
	Fukuchiyama line & Harima line	150	534	△ 1	△ 40	71	24,717	1	785
	Kansai line	501	4,016	△ 6	△ 1,553	213	96,596	—	391
	Sanuki line	69	629	△ 1	△ 54	23	10,212	—	—
	Tokushima line	39	164	—	△ 40	23	7,087	—	—
	Total	2,035	18,324	44	△ 1,959	645	319,431	17	12,288
Kyushu Div. Sup't. Office	Kagoshima line	524	4,100	13	600	129	59,999	△ 1	415
	Nagasaki line	248	1,679	7	* △ 745 24	78	33,629	—	444
	Hoshu line	175	1,030	25	211	63	24,573	11	5,061
	Chikuho line	210	1,474	3	239	36	11,391	1	91
	Total	1,157	8,283	48	329	306	129,592	11	6,011
Hokkaido Div. Sup't. Office	Hakodate line	532	4,724	56	759	137	47,209	△ 6	△ 3,477
	Muroran line	225	1,130	14	45	50	18,390	△ 1	△ 411
	Rumoi line	50	183	—	—	15	4,575	△ 1	△ 265
	Kushiro line	221	1,560	31	136	65	19,094	△ 1	307
	Teshio line	71	319	16	38	26	6,936	8	2,392
	Abashiri line	76	267	32	96	24	7,200	10	3,000
	Total	1,175	8,183	149	1,074	317	103,404	9	1,546
Yonago Branch Office	San-in main line	243	1,426	26	169	63	2,624	12	4,450
	Sakai line	23	71	—	—	5	1,800	—	—
	Total	266	1,497	26	169	68	4,424	12	4,450
Grand total		9,178	76,864	295	1,405	2,534	1,139,589	81	40,915

TRAFFIC MILEAGE, ETC.—*Continued.*

Buildings

Loading platforms				Over-bridges		Under-ground ways		Turntables	
Year under review		Inc. or dec. (△) against preceding year		Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year
	ft.		*ft.*						
166	35,825	14	2,963	63	1	—	—	20	1
197	16,442	129	2,001	30	4	1	—	5	—
65	14,112	2	550	23	1	—	—	10	—
12	2,600	—	—	—	—	—	—	2	—
20	4,117	—	64	11	—	—	—	3	—
49	10,404	6	630	13	—	1	—	6	—
509	83,500	151	6,208	140	6	2	—	46	1
104	23,626	6	1,838	49	1	2	—	15	3
15	3,504	—	—	15	—	—	—	2	—
8	1,790	—	—	1	—	—	—	—	—
68	13,121	2	438	20	3	5	1	9	—
50	8,994	3	450	11	—	—	—	4	—
57	8,699	4	794	19	1	—	—	7	—
302	59,734	15	3,520	115	5	9	1	37	3
41	12,154	—	—	21	—	1	—	9	2
136	23,286	3	190	16	—	—	—	13	1
35	6,337	9	1,688	6	—	—	—	7	—
39	7,170	1	160	1	1	—	—	1	—
98	18,649	—	407	16	△ 1	—	—	10	—
14	2,393	—	—	1	—	—	—	2	1
13	1,396	—	—	—	—	—	—	1	—
376	71,385	13	2,445	61	—	1	—	43	2
78	13,872	△ 2	683	11	5	1	—	11	1
42	6,360	—	87	5	1	—	—	2	—
33	4,860	6	1,190	4	—	2	1	4	2
19	2,759	—	—	4	△ 1	—	—	3	—
172	27,851	4	1,960	24	5	3	1	20	1
70	17,765	△ 3	4,139	14	1	—	—	21	1
25	3,515	1	8	4	3	—	—	10	—
7	1,100	—	—	—	—	—	—	1	—
32	4,303	1	228	5	2	—	—	5	—
12	1,399	3	495	3	3	—	—	2	1
12	1,850	5	800	—	—	—	—	3	2
158	29,932	7	5,670	26	9	—	—	42	4
33	5,480	5	900	4	—	—	—	3	1
3	600	—	—	—	—	—	—	—	—
36	6,080	5	900	4	—	—	—	3	1
1,553	278,482	195	20,703	370	26	15	2	191	12

NUMBER OF STATIONS,

Line	Item	Turntables for wagons		Traversers	
		Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year
Eastern Div. Sup't. Office	North eastern line	29	△ 2	21	△ 1
	Joban line	—	—	4	—
	O-U line	—	—	12	1
	Gan-Etsu line	—	—	1	—
	Takasaki line & Shin-Etsu line	—	—	2	—
	Sobu line	2	—	1	—
	Total	31	△ 2	41	—
Central Div. Sup't. Office	Tokaido line	32	—	19	—
	Yamanote line & Kansai line	1	—	1	—
	Yokohama line	—	—	—	—
	Central line	—	—	8	—
	Shin-Etsu line	—	—	9	1
	Hokuroku line	—	—	5	—
	Total	33	—	42	1
Western Div. Sup't. Office	Tokaido line	6	4	11	2
	San-yo line	5	4	5	2
	San-in line	—	—	2	—
	Fukuchiyama line & Harima line	—	—	1	—
	Kansai line	9	—	12	1
	Sanuki line	1	—	—	—
	Tokushima	—	—	—	—
	Total	21	8	31	5
Kyushu Div. Sup't. Office	Kagoshima line	7	—	4	—
	Nagasaki line	—	—	3	2
	Hoshu line	1	—	8	—
	Chikuho line	2	—	36	2
	Total	10	—	51	4
Hokkaido Div. Sup't. Office	Hakodate line	—	—	2	—
	Muroran line	—	—	3	△ 1
	Rumoi line	—	—	—	—
	Kushiro line	—	—	—	—
	Teshio line	—	—	—	—
	Abashiri line	—	—	—	—
	Total	—	—	5	△ 1
Yonago Branch Office	San-in main line	—	—	2	1
	Sakai line	2	—	—	—
	Total	2	—	2	1
Grand total		97	6	172	10

TRAFFIC MILEAGE, ETC.—*Continued.*

Station Buildings

Ashpits		Truck-scales		Coal stages		Water tanks & stand pipes	
Year under review	Inc. or dec. (Δ) against preceding year	Year under review	Inc. or dec. (Δ) against preceding year	Year under review	Inc. or dec. (Δ) against preceding year	Year under review	Inc. or dec. (Δ) against preceding year
94	8	10	1	43	2	123	2
31	1	8	—	10	—	39	1
40	10	5	—	33	Δ 2	121	50
7	—	—	—	7	—	11	—
9	—	2	—	4	Δ 1	18	1
12	—	2	—	9	1	15	1
193	19	27	1	106	—	327	55
37	4	26	—	20	2	55	2
9	2	1	3	4	1	11	2
6	—	—	—	2	—	3	—
29	4	6	—	23	2	57	4
13	—	5	1	17	—	42	Δ 2
11	1	6	—	10	1	36	—
105	11	44	—	76	4	204	6
9	1	9	—	13	1	35	2
27	5	8	3	20	2	55	2
1	—	—	—	2	—	17	1
2	—	1	—	7	—	13	—
18	—	6	1	17	—	52	2
3	—	—	—	—	Δ 3	5	Δ 1
4	—	—	—	2	—	2	—
64	6	24	4	61	0	179	6
27	1	3	Δ 1	17	Δ 1	27	1
12	—	—	—	5	—	11	—
11	3	1	—	9	3	6	1
5	—	—	—	6	—	6	—
55	4	4	Δ 1	37	2	50	2
32	—	6	2	32	3	41	Δ 3
6	—	1	—	6	Δ 2	18	1
4	—	—	—	4	—	4	—
12	—	1	—	17	Δ 1	23	2
7	3	—	—	7	3	7	3
10	5	—	—	10	5	10	5
71	8	8	2	76	8	103	8
8	2	1	1	3	1	13	5
—	—	—	—	—	—	—	—
8	2	1	1	3	1	13	5
496	50	108	7	359	15	876	82

NUMBER OF STATIONS,

Line	Item	Station Buildings			
		Signals		Mechanical interlockings, lst cl.	
		Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or doc. (△) against preceding year
		set	*set*	*set*	*set*
Eastern Div. Sup't. Office	North Eastern line	715	44	16	1
	Joban line	295	7	8	—
	O-U line	255	23	4	—
	Gan-Etsu line	58	21	—	—
	Takasaki line & Shin-Etsu line	99	4	4	—
	Sobu line	166	29	3	—
	Total	1,588	128	35	1
Central Div. Sup't. Office	Tokaido line	505	70	70	17
	Yamanote line & Kansai line	136	6	6	7
	Yokohama line	39	—	—	2
	Central line	314	9	9	5
	Shin-Etsu line	188	23	23	5
	Hokuroku line	259	20	20	1
	Total	1,441	128	128	37
Western Div. Sup't- Office	Tokaido line	152	2	9	1
	San-yo line	389	23	—	—
	San-in line	86	34	2	—
	Fukuchiyama line & Harima line	62	1	9	1
	Kansai line	362	27	4	—
	Sanuki line	29	△ 1	—	—
	Tokushima line	31	—	—	—
	Total	1,111	86	24	2
Kyushu Div. Sup't. Office	Kagoshima line	302	31	8	4
	Nagasaki line	143	15	—	—
	Hoshu line	138	31	1	1
	Chikuho line	145	6	6	2
	Total	728	83	15	7
Hokkaido Div. Sup't. Office	Hakodate line	297	49	7	—
	Muroran line	112	△ 2	1	—
	Rumoi line	30	—	—	△ 2
	Kushiro line	143	22	3	—
	Teshio line	46	28	—	—
	Abashiri line	46	20	—	—
	Total	674	117	11	△ 2
Yonago Branch Office	San-in main line	127	19	—	—
	Sakai line	12	—	—	—
	Total	139	19	—	—
Grand total		5,681	561	213	45

TRAFFIC MILEAGE, ETC.—*Continued.*

Station Buildings				Official and other buildings							
Mechanical interlockings, 2nd class.		Point signals		Official residences				Official residences & dormitories			
Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review		Inc. or dec (△) against preceding year		Year under review		Inc. or dec. (△) against preceding year	
set	*set*				*tsubo*		*tsubo*		*tsubo*		*tsubo*
331	24	709	46	300	7,587	52	2,000	895	23,250	△ 176	304
154	7	277	14	76	1,219	△ 1	202	521	8,389	39	667
165	11	189	104	106	3,536	5	1,198	507	9,274	11	242
25	20	32	16	22	347	△ 2	△ 17	50	923	—	—
50	—	95	4	24	432	18	311	85	3,651	3	20
97	9	113	3	8	368	—	△ 2	75	2,149	8	217
822	71	1,415	187	536	13,989	72	3,692	2,133	47,636	△ 115	1,450
187	45	85	6	300	11,543	△ 3	380	359	11,719	65	460
80	9	39	△ 2	18	193	—	△ 8	37	1,534	2	42
—	—	10	—	6	126	—	—	9	206	—	—
152	46	73	35	153	2,976	52	1,114	290	9,527	54	1,727
78	23	26	8	104	2,042	1	△ 14	158	4,568	13	281
128	43	13	10	70	1,542	△ 5	△ 32	185	5,410	5	133
625	166	246	57	651	18,422	45	1,440	1,038	32,964	39	2,643
49	13	50	2	19	3,831	—	△ 29	111	4,221	4	98
314	70	285	49	80	5,606	△ 5	△ 257	339	9,930	3	△ 108
59	7	50	34	11	531	2	11	94	2,272	16	408
92	5	65	18	15	681	△ 2	△ 12	64	1,659	1	30
132	112	297	19	68	3,572	—	△ 144	170	5,364	7	151
16	—	13	△ 1	6	69	△ 1	△ 8	16	456	1	18
31	—	31	—	4	266	—	—	13	193	—	2
693	207	791	121	203	14,556	△ 6	△ 439	807	24,095	32	599
184	41	184	59	218	6,314	28	1,652	434	8,580	20	181
136	86	110	40	48	770	5	△ 78	54	1,718	△ 23	97
99	60	21	4	37	669	△ 1	△ 4	150	3,381	28	644
49	6	38	12	78	1,363	△ 2	△ 55	90	2,173	1	13
468	193	353	115	381	9,116	3	△ 915	728	15,852	26	935
102	11	174	19	240	9,109	△ 1	△ 11	1,664	28,713	120	1,354
66	—	87	△ 4	40	833	4	130	587	8,727	12	277
2	—	—	—	2	25	2	25	107	1,601	—	—
61	—	102	33	70	1,815	9	46	624	9,997	20	508
—	—	33	33	12	171	1	2	203	2,780	53	664
—	—	—	—	11	94	5	47	186	3,270	98	1,710
231	11	396	81	375	12,047	20	239	3,371	55,088	301	4,513
57	57	68	66	26	457	7	68	48	2,729	6	347
—	—	—	—	—	—	—	—	3	158	—	—
57	57	68	66	26	457	7	68	51	2,887	6	347
2,896	705	3,269	627	2,172	68,587	163	5,915	8,128	178,522	389	10,487

NUMBER OF STATIONS,

Line	Item	Hotels				Watch-boxes, workmen's quarters & store-rooms			
		Year under review		Inc. or dec. (△) against preceding year		Year under review		Inc. or dec. (△) against preceding year	
			tsubo		*tsubo*		*tsubo*		*tsubo*
Eastern Div. Sup't. Office	North-Eastern line	—	—	—	—	602	3,031	44	193
	Joban line	—	—	—	—	159	952	—	—
	O-U line	—	—	—	—	277	1,591	△ 1	125
	Gan-Etsu line	—	—	—	—	38	194	15	45
	Takasaki line & Shin-Etsu line	—	—	—	—	93	529	△ 2	△ 18
	Sobu line	—	—	—	—	73	492	8	47
	Total	—	—	—	—	1,242	6,789	64	392
Central Div. Sup't. Office	Tokaido line	—	—	—	—	475	1,970	△ 1	36
	Yamanote line & Kansai line	—	—	—	—	28	159	1	3
	Yokohama line	—	—	—	—	11	99	—	—
	Central line	—	—	—	—	313	1,450	55	226
	Shin-Etsu line	—	—	—	—	207	1,060	17	65
	Hokuroku line	—	—	—	—	221	1,094	11	89
	Total	—	—	—	—	1,255	5,832	83	419
Western Div. Sup't. Office	Tokaido line	—	—	—	—	149	909	2	2
	San-yo line	6	638	1	115	179	1,018	—	—
	San-in line	—	—	—	—	96	633	22	155
	Fukuchiyama line & Harima line	—	—	—	—	34	180	—	—
	Kansai line	9	754	—	—	254	1,364	—	—
	Sanuki line	1	287	—	—	19	106	—	—
	Tokushima line	—	—	—	—	4	12	—	—
	Total	16	1,679	1	115	735	4,222	24	157
Kyushu Div. Sup't. Office	Kagoshima line	—	—	—	—	195	819	41	202
	Nagasaki line	—	—	—	—	68	299	△ 3	△ 95
	Hoshu line	—	—	—	—	72	308	14	△ 62
	Chikuho line	—	—	—	—	34	173	10	33
	Total	—	—	—	—	369	1,599	62	78
Hokkaido Div. Sup't. Office	Hakodate line	—	—	—	—	75	444	2	11
	Muroran line	—	—	—	—	19	135	1	3
	Rumoi line	—	—	—	—	6	63	—	—
	Kushiro line	—	—	—	—	16	201	2	30
	Teshio line	—	—	—	—	9	67	1	2
	Abashiri line	—	—	—	—	—	—	—	—
	Total	—	—	—	—	125	910	6	46
Yonago Branch Office	San-in main line	—	—	—	—	140	758	28	172
	Sakai line	—	—	—	—	7	30	—	—
	Total	—	—	—	—	147	788	28	172
Grand total		16	1,679	1	115	3,873	20,140	267	1,264

TRAFFIC MILEAGE, ETC.—*Continued.*

Spark-arresting sheds				Snow-sheds				Snow-fences				Snow-screens			
Year under review		Inc. or dec. (△) against preceding year		Year under review		Inc. or dec. (△) against preceding year		Year under review		Inc. or dec. (△) against preceding year		Year under review		Inc. or dec. (△) against preceding year	
	ft.		*ft.*		*ft.*		*ft.*		*ft.*		*ft.*		*st.*		*st.*
3	4,728	—	—	15	16,424	△ 1	552	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	69	31,380	1	465	23	20,826	—	—	40	4,469	—	—
—	—	—	—	6	8,481	—	—	2	834	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3	4,728	—	—	90	56,285	—	1,017	25	21,660	—	—	40	4,469	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	19	8,514	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	19	8,514	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	25	6,909	5	591	3	530	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	8	2,376	8	2,376	—	—	—	—	—	—	—	—
—	—	—	—	7	6,078	1	1,200	—	—	—	—	—	—	—	—
—	—	—	—	1	500	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	41	15,863	14	4,167	3	530	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3	4,728	—	—	150	80,662	14	5,184	28	22,190	—	—	40	4,469	—	—

NUMBER OF STATIONS,

Line	Item	Plantations (for guarding against snow drift)				Fences & boundaries				Quaywalls	
		Year under review		Inc. or dec. (△) against preceding year		Year under review		Inc. or dec. (△) against preceding year		Year under review	Inc. or dec. (△) against preceding year
			se.bu		*se.bu*		*ken*		*ken*		
Eastern Div. Sup't. Office	North Eastern line	44	7884.08	4	7884.08	555	04,071	76	13,568	31	19
	Joban line	—	—	—	—	157	35,472	40	10,572	—	—
	O-U line	45	10224.18	14	2517.18	1,324	26,806	△ 7	△ 614	—	—
	Gan-Etsu line	—	—	—	—	36	1,494	—	—	—	—
	Takasaki line & Shin-Etsu line.	—	—	—	—	42	11,537	1	14	—	—
	Sobu line	—	—	—	—	96	19,962	14	431	—	—
	Total	89	18108.26	18	3672.13	2,210	159,342	124	23,981	31	19
Central Div. Sup't. Office	Tokaido line	—	—	—	—	1,652	36,691	8	1,075	5	—
	Yamanote line & Kansai line...	—	—	—	—	225	5,716	2	57	—	—
	Yokohama line	—	—	—	—	21	5,214	—	—	—	—
	Central line	—	—	—	—	949	27,844	2	315	—	—
	Shin-Etsu line	—	—	—	—	676	15,883	11	2,163	7	2
	Hokuroku line	—	—	—	—	616	17,816	4	866	1	—
	Total	—	—	—	—	4,139	109,164	27	4,476	13	2
Western Div. Sup't. Office	Tokaido line	—	—	—	—	—	15,557	—	—	—	—
	San-yo line...	—	—	—	—	—	60,421	—	462	—	—
	San-in line	—	—	—	—	—	17,457	—	5,111	—	—
	Fukuchiyama line & Harima line.	—	—	—	—	—	16,798	—	310	—	—
	Kansai line	—	—	—	—	—	32,987	—	384	—	—
	Sanuki line	—	—	—	—	—	3,227	—	—	—	—
	Tokushima line	—	—	—	—	—	5,944	—	1,160	—	—
	Total	—	—	—	—	—	152,391	—	7,427	—	—
Kyushu Div. Sup't. Office	Kagoshima line	—	—	—	—	1,188	38,094	* 168 ▲ 40	△ 514	—	—
	Nagasaki line	—	—	—	—	687	21,470	* 487	△ 23	—	—
	Hoshu line	—	—	—	—	602	16,936	170	2,124	—	—
	Chikuho line	—	—	—	—	442	12,072	△ 16	△ 11	—	—
	Total	—	—	—	—	2,919	88,572	769	5,176	—	—
Hokkaido Div. Sup't. Office	Hakodate line	52	19250.00	20	11750.00	—	28,475	—	6,551	22	17
	Muroran line	—	—	—	—	—	10,184	—	△ 189	7	—
	Rumoi line...	—	—	—	—	—	456	—	456	—	—
	Kushiro line	1	4000.00	1	4000.00	—	2,512	—	1,329	—	—
	Teshio line...	—	—	—	—	—	661	—	75	—	—
	Abashiri line	—	—	—	—	—	339	—	339	—	—
	Total	53	23250.00	21	15750.00	—	42,627	—	8,561	29	17
Yonago Branch Office	San-in main line	—	—	—	—	—	14,789	—	1,201	—	—
	Sakai line	—	—	—	—	—	1,569	—	—	—	—
	Total	—	—	—	—	—	16,358	—	1,201	—	—
Grand total		142	41358.26	39	19422.13	9,268	568,454	920	50,822	73	38

N.B.—In the column of "Points and Crossings" the asterisk (×) indicates slips, diamond crossings, floodopenings and roadbridges.

TRAFFIC MILEAGE, ETC.—*Continued.*

Works Buildings												Buildings for electricity			
Works & Power rooms				Other buildings				Traversers		Turntables for wagons					
Year under review		Inc. or dec (△) against preceding year		Year under review		Inc. or dec. (△) against preceding year		Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review		Inc. or dec. (△) against preceding year	
	tsubo		*tsubo*		*tsubo*		*tsubo*						*tsubo*		*tsubo*
43	11,754	1	155	84	3,965	51	319	8	6	28	26	4	100	—	11
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11	4,087	6	1,507	24	670	4	203	1	—	3	3	11	190	9	167
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	10	776	10	776
8	512	—	△ 6	13	86	1	5	1	—	—	—	—	—	—	—
62	16,353	7	1,656	121	4,721	56	527	10	6	31	29	25	1,066	19	954
33	5,182	—	—	44	981	△ 13	△ 101	2	—	—	—	18	1,605	1	190
—	—	—	—	—	—	—	—	—	—	—	—	8	158	—	—
5	605	—	—	4	57	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	8	313	—	36
25	2,462	—	—	19	729	—	△ 7	—	—	8	—	—	—	—	—
5	1,244	—	△ 20	17	450	4	198	2	—	1	—	—	—	—	—
68	9,493	—	△ 20	84	2,217	△ 9	90	7	—	9	—	34	2,067	1	226
17	4,560	△ 2	△ 155	22	192	△ 3	△ 136	8	—	5	—	1	22	—	—
28	11,288	△ 5	1,514	53	1,053	△ 14	△ 393	2	△ 2	3	-	4	166	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6	717	△ 1	△ 388	1	130	—	—	1	—	—	—	—	—	—	—
28	1,589	—	53	37	371	—	—	2	—	5	—	—	—	—	—
3	156	—	—	2	18	1	15	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
82	18,310	△ 8	1,024	115	1,764	△ 16	△ 514	13	△ 2	13	—	5	188	—	—
22	5,397	△ 29	86	40	849	△ 4	181	—	—	—	—	2	92	△ 1	△ 112
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20	1,986	1	△ 173	26	550	2	176	—	—	—	—	—	—	△ 1	△ 28
13	1,063	2	74	19	244	—	△ 61	—	—	—	—	—	—	△ 2	△ 111
55	8,446	△ 26	△ 13	85	1,643	△ 2	296	—	—	—	—	2	92	△ 4	△ 251
46	11,301	3	1,040	62	1,133	6	47	6	4	5	1	4	157	3	79
2	588	2	588	6	22	6	22	1	1	—	—	3	38	3	38
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4	506	—	359	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
52	12,395	5	1,987	68	1,155	12	69	7	5	5	1	7	195	6	117
1	13	—	—	9	618	2	42	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1	13	—	—	9	618	2	42	—	—	—	—	—	—	—	—
320	65,010	△ 22	4,634	482	12,118	43	510	37	9	58	30	73	3,608	22	1,046

scissors crossings and double switches, while (◎) indicates leased land. "Bridges and Culverts" includes

TABLE NO. XXXVI.

BUILDING MATERIALS USED FOR TRACKS & BRIDGES.

	Item		Maintenance	Additional	Improvement	Total
Rails	75 lb.	*yard*	627	—	187 141,354	187 141,981
	70 lb.	„	171	110	744 88,149	744 88,430
	60 lb.	„	12,374 105,460.9 47,028.7	413.3 28,690.9 17,826.8	260 133,311.3 595,153.1	13,047.3 267,463.1 660,008.6
	56 lb.	„	253.3	—	—	253.3
	50 lb.	„	2,233 2,420.2	1,708 1,127.3	19,968 7,026	23,909 10,573.5
	45 lb.	„	13,785 1,129	8,669 8,978	18,665	14,119 10,107
	25 lb.	„	—	—	525	525
	Doubleheaded	„	264 482	544	30	294 1,026
	Total	„	12,638 121,960.9 51,649.2	413.3 39,611.9 28,042.1	290 172,875.3 832,207.1	13,341.3 334,448.1 911,898.4
Fishplates	for 75 lb.	*piece*	24 133	—	104 26,146	128 26,279
	for 70 lb.	„	65	28	2,981 16,942	2,981 17,035
	for 60 lb.	„	3,991 17,156	1,638 518	3,216 70,703	8,845 38,377
	for 56 lb.	„	89	—	—	89
	for 60 lb., angle	„	2,348 21,826	2,014 4,938	10,653 108,205	15,015 134,970
	for 50 lb., angle	„	506 750	24	428 4,596	958 5,346
	for 45 lb., angle	„	168 1,724	1,693	1,812 1,216	1,350 4,633
	for 60 lb., flat	„	106 19,901 3,020	2,274 770	10,275 2,577	106 32,450 6,337
	for 50 lb., flat	„	816	380 72	930 116	1,310 1,004
	for 45 lb., flat	„	287 376	724 662	1,504 14	2,515 1,052
	for tongue rails, special brand	„	2 370	16 8	160 44	178 422
	for rails of different weight	„	195 5,617	32 1,648	184 9,581	411 16,846
	Doubleheaded	„	14	140	—	14 140
	Total	„	120 27,422 51,943	7,242 10,307	31,617 190,140	120 66,281 252,390
Fishplate chairs		„	1,571	42	539	2,152

BUILDING MATERIALS USED FOR TRACKS & BRIDGES.—*Continued.*

Item			Maintenance	Additional	Improvement	Total
Bolts for fishplates	for 75 lb.	*piece*	1,005	—	24 80,305	24 81,310
	for 70 lb.	,,	1,087	76	4,275 32,853	4,275 34,016
	for 60 lb.	,,	140 50,390 246,581	10,689 15,286	2,986 41,209 860 303,990	3,126 102,288 860 565,857
	for 56 lb.	,,	24	—	—	24
	for 50 lb.	,,	2,072 47,225	462 855	2,074 10,904	4,608 58,984
	for 45 lb.	,,	1,264 9,883	460 7,278	8,784 5,807	10,508 22,968
	for 35 lb.	,,	100	—	—	100
	for 25 lb.	,,	—	—	92 180	92 180
	for Doubleheaded	,,	—	280	—	280
	Total	,,	140 53,726 305,905	11,891 23,495	2,986 56,458 860 434,039	3,126 122,075 860 763,439
Locknut chairs		*piece*	10,116 361,932	2,596 18,218	1,825 7,553 423,077	1,825 20,265 803,227
Dog spikes		,,	880 211,523 1,350,004	37,219 262,914	11,652 170,177 3,436,552	12,532 418,919 5,049,470
Doubleheaded spikes		,,	90 7,349 159,000	1,806 10,785	1,866 156,153	90 11,021 325,938
Points	for 75 lb.	*set*	—	—	36	36
	for 70 lb.	,,	2	1	13	16
	for 60 lb.	,,	51 363	40 152	3 44 1,047	3 135 1,562
	for 56 lb.	,,	5	—	—	5
	for 50 lb.	,,	7 36	2 5	7 10	16 51
	for 45 lb.	,,	2 52	2 7	3 30	7 89
	Total	,,	60 458	44 165	3 54 1,136	3 158 1,759
Crossings	for 75 lb.	*set*	—	—	36	36
	for 70 lb.	,,	4	1	13	18
	for 60 lb.	,,	23 543	8 154	3 34 1,015	3 65 1,712
	for 56 lb.	,,	4	—	—	4
	for 50 lb.	,,	5 21	2 5	7 8	14 34
	for 45 lb.	,,	2 31	1 51	5 7	8 89
	Total	,,	30 603	11 211	3 46 1,079	3 87 1,893

BUILDING MATERIALS USED FOR TRACKS & BRIDGES.—*Continued.*

Item				Total	Improvement	Additional	Maintenance
Materials for points and crossings	Point rails	for 70 lb.	*piece*	2	—	—	2
		for 60 lb.	,,	36 195	2	—	38 195
		for 56 lb.	,,	2	—	—	2
		for 50 lb.	,,	3 5	—	—	3 5
		for 45 lb.	,,	7	—	—	7
	Stock rails	for 60 lb.	,,	33 41	4	56	37 97
		for 56 lb.	,,	3	—	—	3
		for 50 lb.	,,	1 7	—	—	1 7
	Edge rails	for 60 lb.	,,	74 228	66 106	24 408	164 742
		for 50 lb.	,,	1	—	—	1
	Wing rails	for 60 lb.	,,	7	—	—	7
	Nose rails	for 60 lb.	,,	4	—	—	4
	Chocks		*set*	86 24,766	133 78	124 624	343 25,468
	Chock bolts		*piece*	1,175 14,020	137 62	32 320	1,344 14,402
	Fang bolts		,,	925 19,930	494	2,103	925 22,527
	Tie plates		,,	20 711	4	16	20 731
75 lb. rails for single slips			*set*	—	—	4	4
do. for double slips			,,	—	—	5	5
60 lb. rails for diamond crossings			,,	1	1	14	16
do. single slips			,,	1	—	5	6
do. double slipe			,,	—	—	40	40
do. tie plates			*piece*	300	—	—	300
Screw spikes for tie plates			,,	182	4	30	216
Iron shoes			,,	1,569 3,665	700 48	101	2,269 3,804
Sprikes for iron shoes			,,	—	1,500	—	1,500
Covered rails			,,	4 327	—	6	10 327
Hook-bolts			,,	1,371 44,600	2,322	850 220 33,481	850 1.591 80,403
Wooden rail-braces			,,	59,798	4 1,192	8,705	4 69,695
Rail-braces made of iron			,,	1,226 52,824	308	22,310	1,226 75,442

BUILDING MATERIALS USED FOR TRACKS & BRIDGES.—*Continued.*

Item				Maintenance	Additional	Improvement	Total
Ordinary sleepers	Main tracks	Ordinary articles	*piece*	5,057 20,524 637 1,417,470	26 98 17,822	2,250 432,449	7,333 20,622 637 1,867,741
		Creosoted articles	,,	29,099	—	21,943	51,042
		Total	,,	5,057 20,524 637 1,446,569	26 98 17,822	2,250 454,392	7,333 20,622 637 1,918,783
		Average number per mile of all tracks	,,	(5,669 *m.*) 259	—	—	—
	Sidings	Ordinary articles	,,	1,359 7,771 135,479	5,210 23,627	3,100 1,138 203,855	4,459 14,119 362,961
		Creosoted articles	,,	3,021	—	21,307	24,328
		Total	,,	1,359 7,771 138,500	5,210 23,627	3,100 1,138 225,162	4,459 14,119 387,289
		Average number per mile of all tracks	,,	(1,604 *m.*) 92	—	—	—
Sleepers for points and crossings			,,	503 49,365	202 6,924	131 211 55,943	131 916 112,232
Average number per set of the total sets of points and crossings			,,	(17,443 *set*) 2	—	—	—
Sleepers for bridges			,,	42,040	16 1,314	15 21,278	552 64,632
Average number per 100 ft. of the aggregate length of all bridges and culverts			,,	(661,258 *ft.*) 6	—	—	—
Abt. system		Chairs	,,	3,498	—	—	3,498
		Sleepers	,,	1,032	—	—	1,032
		Fishplates	,,	3,015	—	—	3,015
		Bolts	,,	12,923	—	—	12,623
Rolled bearers		3 ft. clear span	*span*	57	5	3 68	3 130
		3 ft. 6 in. clear span	,,	1	—	1	1 1
		3 ft. 9 in. ,, ,,	,,	—	—	1 2	1 2
		4 ft. ,, ,,	,,	36	5	5 67	5 108
		4 ft. 3 in. ,, ,,	,,	—	—	1	1
		4 ft. 6 in. ,, ,,	,,	11	—	2	13
		4 ft. 9 in. ,, ,,	,,	—	—	1	1
		5 ft. ,, ,,	,,	7	—	43	50
		5 ft. 5⅜ in. ,, ,,	,,	—	—	1	1
		5 ft. 6 in. ,, ,,	,,	1	—	1 2	1 3
		5 ft. 9 in. ,, ,,	,,	—	—	1	1
		6 ft. ,, ,,	,,	1 32	1 4	11 106	13 142
		6 ft. 6 in. ,, ,,	,,	1	—	—	1
		7 ft. ,, ,,	,,	—	—	1 13	1 13
		7 ft. 3 in. ,, ,,	,,	—	—	2	2

BUILDING MATERIALS USED FOR TRACKS & BRIDGES—*Continued.*

	Item		Maintenance	Additional	Improvement	Total
Rolled bearers	7 ft. 6 in. clear span	*span*	—	—	6	6
	7 ft. 9 in. „ „	„	—	—	4	4
	7 ft. 9¾ in. „ „	„	—	—	1	1
	7 ft. 11¾ in. „ „	„	—	—	1	1
	7 ft. 11½ in. „ „	„	—	—	1	1
	7 ft. 9 7/16 in. „ „	„	—	—	1	1
	8 ft. „ „	„	1 7	—	2 68	3 75
	8 ft. 6 in. „ „	„	2	—	—	2
	9 ft. „ „	„	4	—	1	5
	9 ft. 7 in. „ „	„	—	—	2	2
	9 ft. 9⅛ in. „ „	„	—	—	2	2
	10 ft. „ „	„	1 6	—	2 67	3 73
	11 ft. 6 in. „ „	„	—	—	1	1
	12 ft. „ „	„	—	1	5 68	5 69
	12 ft. 3 in. „ „	„	—	—	1	1
	12 ft. 9 in. „ „	„	—	—	6	6
	12 ft. 11 in. „ „	„	—	—	1	1
	13 ft. 3½ in. „ „	„	—	—	1	1
	14 ft. „ „	„	—	—	3	3
	14 ft. ⅜ in. „ „	„	—	—	1	1
	14 ft. 3½ in. „ „	„	—	—	2	2
	14 ft. 3⅝ in. „ „	„	—	—	2	2
	14 ft. 4½ in. „ „	„	—	—	1	1
	14 ft. 7⅛ in. „ „	„	—	—	1	1
	15 ft. „ „	„	—	1	4 59	4 60
	15 ft. 6 in. „ „	„	—	—	2	2
	18 ft. „ „	„	—	—	1 6	1 6
	Total	„	3 165	1 16	39 616	43 797
Box girders	4 ft. clear span	„	—	—	1	1
	4 ft. 9 in. clear span	„	—	—	1	1
	6 ft. „ „	„	—	—	2	2
	9 ft. „ „	„	—	—	22	22
	12 ft. „ „	„	—	—	2	2
	15 ft. „ „	„	—	—	2	2
	17 ft. 2 in. „ „	„	—	—	1	1
	17 ft. 6 in. „ „	„	—	—	2	2
	17 ft. 11 1/16 in. clear spam	„	—	—	1	1
	Total	„	—	—	34	34

BUILDING MATERIALS USED FOR TRACKS & BRIDGES.—*Continued.*

	Item		Maintenance	Additional	Improvement	Total
Plate girders	12 ft. clear span	*span*	1	—	—	1
	15 ft. „ „	„	—	—	6	6
	18 ft. „ „	„	—	—	1 5	1 5
	19 ft. 5⅝in „ „	„	—	—	1	1
	20 ft. „ „	„	6	1	3 20	9 21
	30 ft. „ „	„	1	1	1 5	1 7
	40 ft. „ „	„	1 6	2 5	31	3 42
	50 ft. „ „	„	1	—	—	1
	60 ft. „ „	„	3	—	3 10	3 13
	70 fr. „ „	„	1	3	4	8
	80 ft. „ „	„	—	—	1	1
	Total	„	8 12	2 10	8 83	18 105
Trussed girders	100 ft. clear span	„	—	—	2	2
	104 ft. „ „	„	—	—	1	1
	105 ft. „ „	„	—	—	6	6
	200 ft. „ „	„	—	—	17	17
	300 ft. „ „	„	—	—	1	1
	Total	„	—	—	1 26	1 26
Girders made of rails		„	14	7	15.½	36.½
Turntables	6 ft. in length	*set*	—	6	1	7
	12 ft. „ „	„	—	2	—	2
	14 ft. „ „	„	—	2	1	3
	60 ft. „ „	„	—	—	18	18
	Total	„	—	2 8	20	2 28
Iron over-bridges	Over double track	„	1	5	8	14
	Over triple track	„	—	5	6	11
	Over quintuple track	„	—	—	1	1
	Total	„	1	10	15	26

N. B.—Slips, diamond crossings, scissors crosssings, double switches, etc. are counted at the rate of each set of them=2 sets of points or crossings, while the length of bridges and culverts does not include that of arched bridges and box culverts.

TABLE NO. XXXVII.

BALLASTING.

Jurisdiction	Item	Maintenance				Additional	Improvement
		Main tracks	Siding	Average ballasting per mile of single tracks			
				Main tracks	Siding		
		tsubo	*tsubo*	*tsubo*	*tsubo*	*tsubo*	*tsubo*
Eastern Div. Sup't. Office	North Easter main line	7,818	696	(591 *m.*) 13.23	(157 *m.*) 4.43	527	2,123
	Joban line	3,115	521	(249 *m.*) 12.51	(84 *m.*) 6.20	271	3,563
	O-U line	4,942	293	(125 *m.*) 39.54	(13 *m.*) 22.54	305	616
	Gan-Etsu line	896	62	(55 *m.*) 16.29	(10 *m.*) 6.20	15	—
	Takasaki & Shinetsu lines	2,231	205	(85 *m.*) 26.25	(52 *m.*) 3.94	104	817
	Sobu line	1,575	111	(85 *m.*) 18.53	(22 *m.*) 5.05	91	—
	Total	20,577	1,888	(1,190 *m.*) 17.29	(338 *m.*) 5.59	1,313	7,209
Central Div. Sup't. Office	Tokaido main line	2,472	20	(609 *m.*) 4.05	(138 *m.*) .14	481	15,301
	Yamanote & Kansai line	331	—	(29 *m.*) 11.41	—	—	—
	Yokohama line	550	—	(28 *m.*) 19.64	—	14	—
	Central line	3,792	15	(313 *m.*) 12.11	(78 *m.*) .19	140	2,902
	Shin-Etsu line	3,054	—	(197 *m.*) 15.50	—	185	6,250
	Hokuroku line	3,516	131	(225 *m.*) 15.62	(53 *m.*) 2.47	50	929
	Total	13,715	166	(1,401 *m.*) 9.78	(269 *m.*) 0.61	870	25,382
Western Div. Sup't. Office	Tokaido main line	1,457	78	(189 *m.*) 7.70	(61 *m.*) 1.27	86	7,411
	San-yo main line	6,782	393	(452 *m.*) 15.95	(111 *m.*) 3.54	141	1,034
	San-in line	1,738	108	(268 *m.*) 6.48	(70 *m.*) 1.54	36	263
	Fukuchiyama & Bantan lines	859	129	(114 *m.*) 7.53	(15 *m.*) 8.60	178	294
	Kansai line	3,164	117	(326 *m.*) 9.73	(71 *m.*) 1.64	145	1,709
	Tokushima line	214	15	(21 *m.*) 10.19	(6 *m.*) 2.50	—	—
	Sanuki line	406	—	(27 *m.*) 15.03	—	5	176
	Total	14,620	840	(1,397 *m.*) 10.46	(334 *m.*) 2.51	591	10,887
Kyushu Div. Sup't. Office	Kagoshima main line	2,605	214	(289 *m.*) 9.01	(104 *m.*) 2.05	394	2,971
	Nagasaki line	2,304	161	(140 *m.*) 16.45	(37 *m.*) 4.35	—	3,244
	Hoshu line	853	31	(37 *m.*) 23.05	(40 *m.*) 0.77	—	1,843
	Chikuho line	1,636	83	(87 *m.*) 18.80	(44 *m.*) 1.88	—	1,440
	Total	7,398	489	(553 *m.*) 13.37	(225 *m.*) 2.17	394	9,498
Hokkaido Div. Sup't. Office	Hakodate line	8,254	1,244	(336 *m.*) 24.55	(127 *m.*) 9.73	67	6,720
	Muroran line	3,683	356	(119 *m.*) 30.74	(63 *m.*) 5.64	—	538
	Rumoi line	102	—	(31 *m.*) 3.28	—	—	—
	Kushiro line	3,623	343	(192 *m.*) 18.86	(32 *m.*) 10.55	7	170
	Teshio line	1,255	74	(69 *m.*) 18.03	(10 *m.*) 7.40	—	—
	Abashi line	200	25	(87 *m.*) 2.30	(12 *m.*) 2.00	—	—
	Total	17,117	2,042	(835 *m.*) 20.48	(256 *m.*) 7.97	74	7,428
Grand total		73,427	5,425	(5,376 *m.*) 13.65	(1,422 *m.*) 3.81	3,242	60,404

N.B.—"Gravel ane detris" comprises gravel selected or sieved, detritus, etc., "Shingle" shingle and sand mixed, and "Others" cobble and broken stones.

TABLE NO. XXXVIII.

RESULTS OF BRIDGE WORKS (more than 100 ft.)

Line	Place	Length
		ft.
Gan-Etsu line	27	10,100.484
Shibata line	2	4,637.500
Boso line	2	740.250
Toyama line	13	4,938.082
Shinjo line	3	2,554.213
San-in line	21	6,424.318
Maizuru line	26	7,126.249
Kyushu lines	27	6,336.899
Hokkaido lines	14	4,081.999

TABLE NO. XXXIX.

RESULTS OF TUNNEL WORKS

Line	Place	Length	Completed during the year under review		
			Shafts	Arches	Sidewalls
		ft.	*ft.*	*ft.*	*ft.*
Gan-Etsu line	32	34,572.07	5,890.05	8,368.06	8,246.00
Boso line	9	4,880.03	1,190.08	—	—
Toyama line	7	14,117.00	209.00	4,349.00	3,226.00
Shinjo line	12	13,331.00	10,467.00	694.00	1,168.00
San-in line	23	34,546.04	—	505.06	362.06
Kyushu lines	12	12,973.07	7,512.08	2,104.00	3,141.00
Hokkaido lines	4	2,125.00	399.01	1,120.00	1,476.03

TABLE

RESULTS OF CONSTRUC-

Line	San-in east line				San-in west line				Oyashiro	
Item	Area of ground acquired during the year under review		Total area of ground acquired from the commencement up to the end of the year under review		Area of ground acquired during the year under review		Total area of ground acquired from the commencement up to the end of the year under review		Area of ground acquired during the year under review	
Area	*se.bu.* 3084.29		*se.bu.* 18017.29		*se.bu.* 90.3.03		*se.bu.* 18615.12		*se.bu.* 703.02	
Item	Completed during the year under review		Total completed from the commencement up to the end of the year under review		Completed during the year under rveiew		Total completed from the commencement up to the end of the year under review		Completed during the year under rveiew	
	No.	dimension	No.	dimension	No.	dimension	No.	dimension	No.	dimension
Earth works :—										
Cuttings and embankments	—	11,511	—	509,907	—	41,645	—	524,021	—	3,468
Retaining walls	—	*s.t.* 572	—	6,687	—	1,930	—	3,016	—	—
Fascine works, etc.	—	*ken.* —	—	—	—	—	—	—	—	—
Bridges :—										
Bridges	*place* 13	*ft.* 399	36	779	9	386	12	450	—	—
Others	*place* —	*ft.* —	—	—	—	1,019	—	1,928	—	—
Culverts :—										
Open and covert	*place* 20	*ft.* —	126	—	24	—	36	—	3	—
Drains :—										
Earthen pipes	*place* 20	*ft.* 505	306	13,771	43	5,984	106	12,820	18	656
Box culverts and siphons	*place* 9	—	23	—	14	—	17	—	—	—
Permanent ways :—										
Ballasting	—	*c.t.* 10,266	—	21,028	—	—	—	3	—	—
Plate-laying	—	*m.c.* 18.10	—	24.26	—	—	—	—	—	—
Switches and crossings...	*set* 53	—	118	—	—	—	—	—	—	—
Indicators	—	—	—	—	—	—	—	—	—	—
Dead ends and level crossings paved with board	—	—	—	—	—	—	—	—	—	—
Stations :—	*building*									
Buildings...	108	*tsubo* 1,393	237	3,201	21	190	28	287	—	—
Signals	*place* 41	—	78	—	—	—	—	—	—	—
Interlockings	*place* 20	—	20	—	—	—	—	—	—	—
Platforms...	*place* 9	*ft.* 2,842	9	2,842	—	—	—	—	—	—
Wooden walls...	—	*ft.* 10,162	—	14,407	—	—	—	—	—	—
Sundries	*place* 134	—	276	—	—	—	—	—	—	—
Overbridges	*place* —	*ft.* —	—	—	—	—	—	—	—	—
Sundry buildings :—	*building*									
Watch-boxes and Stores	24	*tsubo* 122	57	320	3	160	4	225	—	—
Wooden walls for the above	—	*ft.* 144	—	144	—	—	—	—	—	—
Wells	*place* —	—	—	—	—	—	—	—	—	—
Fences and boundary posts :—										
Fences	—	*ft.* 11,839	—	39,323	—	—	—	—	—	—
Telegraphs and telephones :—										
Telegraph and telephone wires	—	—	—	—	—	—	—	—	—	—
Telegraph and telephone apparatus installed	—	*ri.cho.ken* 9.26.33	—	26.07.27	—	—	—	—	—	—

NO. XL.

TION WORKS

line		Maizuru line				Hamada line				Yamaguchi line					
Total area of ground acquired from the commencement up to the end of the year under review		Area of ground acquired during the year under review		Total area of ground acquired from the commencement up to the end of the year under review		Area of ground acquired during the year under review		Total area of ground acquired from the commencement up to the end of the year under review		Area of ground acquired during the year under review		Total area of ground acquired from the commencement up to the end of the year under review			
se.bu 703.02						*se.bu.* 1430.11		*se.bu.* 1430.11		*se.bu.* 978.17		*se.bu.* 978.17			
Total completed from the commencement up to the end of the year under review		Completed during the year under rveiew		Total completed from the commencement up to the end of the year under review		Completed during the year under rveiew		Total completed from the commencement up to the end of the year under review		Completed during the year under review		Total completed from the commencement up to the end of the year under review		Not completed by the end of the year under review	
No.	dimension	No.	dimension	No.	dimension	No.	dimension	No.	dimension	No.	dimension	No.	dimension	No.	dimension
—	3,468	—	—	—	—	—	10,132	—	10,132	—	250	—	250	—	28,217
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,079
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	15	464
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3	—	—	—	—	—	—	—	—	—	—	—	—	—	29	—
18	656	—	—	—	—	—	—	—	—	—	—	—	—	199	6,081
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	2	19	2	19	—	—	—	—	16	188	16	188	1	40
—	—	9	—	9	—	—	—	—	—	—	—	—	—	—	—
—	—	8	—	38	—	—	—	—	—	—	—	—	—	—	—
—	—	4	231	4	231	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	3.06.21	3.06.21	—	08.15

TABLE

RESULTS OF CONSTRUC-

Line	Toyama line				Gan-Etsu line			
Item	Area of ground acquired during the year under review		Total area of ground acquired from the commencement up to the end of the year under review		Area of ground acquired during the year under review		Total area of ground acquired from the commencement up to the end of the year under review	
Area	*se.bu* 595.17		*se.bu* 10538.07		*se.bu* 1195.20		*se.bu* 17998.14	
Item	Completed during the year under review	Total completed from the commencement up to the end of the year under review	Total completed from the commencement up to the end of the year under review	Not completed by the end of the year under review	Completed during the year under review	Total completed from the commencement up to the end of the year under review	Not completed by the end of the year under review	
	No.	dimension	No.	dimension	No.	dimension	No.	dimension	No.	dimension	No.	dimension
Earth works:—												
Cuttings and embankments	—	*c.t.* 88,326	—	383,297	—	—	—	108,274	—	411,164	—	—
Retaining walls	—	*s.t.* 1,810	—	11,657	—	—	—	9,753	—	19,178	—	—
Fascine works, etc.	—	*ken.* —	—	—	—	—	—	238	—	238	—	—
Bridges:—												
Bridges	*place* 22	*ft.* 669	46	1,431	3	102	24	651	31	721	—	—
Others	*place* —	*ft.* —	—	—	—	—	1	—	2	—	1	—
Culverts:—												
Open and covert	*place* 27	*ft.* —	66	—	17	—	24	—	54	—	15	—
Drains:—												
Earthen pipes	*place* 139	*ft.* 5,657	463	18,368	—	—	27	4,986	134	25,922	—	—
Box culverts and siphons	*place* 5	*ft.* 389	5	389	—	—	3	147	10	466	—	—
Permanent ways:—												
Ballasting	—	*c.t.* 5,993	—	24,175	—	4,984	—	332	—	4,203	—	—
Plate-laying	—	*m.ch.* 22.17	—	35.69	—	9.75	—	1.23	—	13.35	—	—
Switches and crossings	59	—	189	—	—	—	—	—	—	—	—	—
Indicators	—	—	—	—	—	—	—	—	—	—	—	—
Dead ends and level crossings paved with board	—	—	—	—	—	—	—	—	—	—	—	—
Stations:—												
Buildings	*building*	*tsubo.* —	19	272	14	487	23	261	38	606	5	336
Signals	—	—	—	—	—	—	—	—	—	—	—	—
Interlockings	—	—	—	—	—	—	—	—	—	—	—	—
Platforms	—	—	—	—	—	—	—	—	—	—	—	—
Wooden walls	*place* —	—	—	—	—	—	—	—	—	—	—	—
Sundries	*place* —	—	—	—	3	—	4	—	11	—	1	—
Overbridges	—	*ft.* —	—	—	—	—	—	—	—	—	1	117
Sundry buildings:—												
Watch-boxes and stores	*building*	*tsubo.* —	11	367	10	254	18	372	119	1,854	—	—
Wooden walls for the above	*place* —	—	—	—	—	—	—	—	—	—	—	—
Wells	—	—	—	—	—	—	2	—	6	—	—	—
Fences and boundary posts:—												
Fences	—	—	—	—	—	—	—	—	—	—	—	—
Telegraphs and telephones:—												
Telegraph and telephone wires	—	—	—	—	—	—	—	21.27.31	—	38.29.30	—	—
Telegraph and telephone apparatus installed	—	—	—	—	—	—	2	—	11	—	—	—

NO. XL.

TION WORKS—*Continued.*

Shibata line				Taira line				Shinjo line						Boso line					
Area of ground acquired during the year under review		Total area of ground acquired from the commencemnt up to the end of the year under review		Area of ground acquired during the year under review		Total area of ground acquired from the commencement up to the end of the year under review		Area of ground acquired during the year under review		Total area of ground acquired from the commencement up to the end of the year under review				Area of ground acquired during the year under review		Total area of ground acquired from the commencement up to the end of the year under review			
se.bu. 902.12		*se.bu.* 4419.10		*se.bu.* 4178.27		*se.bu.* 4178.27		*se.bu.* 4464.23		*se.bu.* 7227.13				*se.bu.* 6383.18		*se.bu.* 8155.20			
Completed during the year under review		Total completed from the commencement up to the end of the year under review		Not completed by the end of the year under review		Completed during the year under review		Total completed from the commencement up to the end of the year under review		Completed during the year under review		Total completed from the commencement up to the end of the year under review		Not completed by the end of the year under review		Completed during the year under review		Total completed from the commencement up to the end of the year under review		Not completed by the end of the year under review	
No.	dimension	No.	dimension	No.	dimension	No.	dimension	No.	dimension	No.	dimension	No.	dimension	No.	dimension	No.	dimension	No.	dimension	No.	dimension
—	33,792	—	53,789	—	—	—	—	—	—	—	105,876	—	109,721	—	135,251	—	84,640	—	96,627	—	72,868
—	1,228	—	1,228	—	—	—	—	—	—	—	16	—	16	—	312	—	1,707	—	1,707	—	301
—	—	—	—	—	—	—	—	—	—	—	496	—	496	—	737	—	—	—	—	—	—
26	538	26	538	—	—	—	—	—	—	—	—	—	—	34	1,017	23	734	23	734	5	340
—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	208	—	—	—	—	—	—
57	342	57	342	—	—	—	—	—	—	—	—	—	—	99	—	78	—	78	—	14	—
61	4,566	61	7,480	—	—	—	—	—	—	492	22,700	496	22,908	264	5,022	521	15,936	522	15,936	41	1,556
1	5	1	5	—	—	—	—	—	—	—	—	—	—	16	163	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5,380	—	5,380	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	20.54	—	20.054	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	70	—	70	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	22	678	—	—	—	—	—	—	—	—	—	—	47	462	47	462	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	2,742	—	2,742	—	3,429	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3	75	7	119	10	199	7	214	7	214	54	954	71	1,537	8	162	22	525	27	525	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	55	2,633	55	2,633	—	—
—	1.34.47	—	6.21.37	—	—	—	—	—	—	—	18.00.14	—	21.02.16	—	2.18.57	—	10.14.26	—	10.14.26	—	—
4	—	4	—	—	—	—	—	—	—	15	—	17	—	3	—	12	—	12	—	—	—

TABLE

RESULTS OF CONSTRUC-

Line	Tokushima line			
Item	Area of ground acquired during the year under review		Total area of ground acquired from the commencement up to the end of the year under review	
Area	*se.bu* 2522.22		*se.bu* 2522.22	
Item	Completed during the year under review		Total completed from the commencement up to the end of the year under review	
	No.	dimension	No.	dimension
Earth works:—				
Cuttings and embankments	—	*c.t.* —	—	—
Retaining walls	—	*t.s.* —	—	—
Fascine work, etc.	—	*ken* —	—	—
Bridges:—				
Bridges	*place* —	*ft.* —	—	—
Others	—	—	—	—
Culverts:—				
Open and covert	*place* —	*ft.* —	—	—
Drains:—				
Earthen pipes	*place* —	*ft.* —	—	—
Box culverts and siphons	*place* —	*ft.* —	—	—
Permanent ways:—				
Ballasting	—	*c.t.* —	—	—
Plate-laying	—	*m.ch.* —	—	—
Switches and crossings	*set* —	—	—	—
Indicators	*piece* —	—	—	—
Dead ends and level crossings paved with board	*place* —	*tsubo* —	—	—
Stations:				
Buildings	*building* —	—	—	—
Signals	*piece* —	—	—	—
Interlockings	*set* —	—	—	—
Platforms	—	*ft.* —	—	—
Wooden walls	*place* —	*ft.* —	—	—
Sundries	—	—	—	—
Overbridges	*place* —	*ft.* —	—	—
Sundry buildings:—				
Watch-boxes and Stores	*building* 8	*tsubo* 314	8	314
Wooden walls for the above	—	—	—	—
Wells	—	*ft.* —	—	—
Fences and boundary posts:—				
Fences	—	*ft.* —	—	—
Telegraphs and telephones:—				
Telegraphs and telephone wires	—	*ri.cho.ken* —	—	—
Telegraph and telephone apparatus installed	—	—	—	—

NO. XL.

TION WORKS—*Continued*

Kyushu line				Hokkaido line				Total			
Area of ground acquired during the year under review		Total area of ground acquired from the commencement up to the end of the year under review		Area of ground acquired during the year under review		Total area of ground acquired from the commencement up to the end of the year under review		Area of ground acquired during the year under review		Total area of ground acquired from the commencement up to the end of the year under review	
se.bu 18681.10		*se.bu* 30263.24		*se.bu* 33549.24		*se.bu* 40393.07		*se.bu* 79574.25		*se.bu* 16544.3.05	
Completed during the year under review		Total completed from the commencement up to the end of the year under review		Not completed by the end of the year under review		Completed during the year under review		Total completed from the commencement up to the end of the year under review		Completed during the year under review		Total completed from the commencement up to the end of the year under review		Not completed by the end of the year under review	
No.	dimension	No.	dimension	No.	dimension	No.	dimension	No.	dimension	No.	dimension	No.	dimension	No.	dimension
—	520,848	—	545,952	—	—	—	240,996	—	527,593	—	1,249,758	—	3,175,921	—	236,336
—	4,005	—	4,105	—	—	—	13,873	—	18,488	—	34,890	—	66,078	—	1,692
—	420	—	420	—	—	—	8,750	—	17,098	—	9,904	—	18,252	—	737
38	982	62	1,524	63	1,775	68	1,572	186	5,343	229	5,931	422	11,520	120	3,698
—	—	—	—	—	—	—	—	—	—	1	1,019	2	1,019	6	208
34	—	47	—	90	—	55	—	62	—	322	342	529	342	264	—
653	37,074	755	41,616	—	—	324	12,808	476	21,889	2,298	110,822	3,337	181,366	504	12,659
24	1,566	24	1,566	—	—	24	440	29	560	80	2,547	109	2,986	16	163
—	6,253	—	10,311	—	—	—	23,105	—	30,059	—	51,329	—	95,156	—	4,984
—	20.68	—	37.54	—	—	—	73.42	—	87.33	—	156.54	—	129.31	—	9.75
88	—	104	—	—	—	125	—	158	—	395	—	639	—	—	—
—	258	—	258	—	—	566	—	696	—	—	824	—	954	—	—
—	—	—	—	—	—	112	—	126	—	—	112	—	126	—	—
81	1,834	104	2,159	9	955	66	1,378	68	1,552	364	5,725	559	8,746	51	2,496
—	—	—	—	—	—	31	—	33	—	81	—	120	—	—	—
—	—	—	—	—	—	—	—	—	—	28	—	58	—	—	—
10	2,883	14	4,623	—	—	20	—	32	—	43	8,698	59	10,438	—	3,429
—	—	—	—	—	—	—	—	—	—	—	11,573	—	15,920	—	—
15	—	15	—	—	—	151	1,411	178	1,513	304	—	480	—	4	—
1	—	1	—	—	—	—	—	—	—	1	—	1	—	1	117
208	3,954	261	4,884	26	406	142	2,192	224	3,444	489	8,735	796	13,803	54	1,021
—	—	—	—	—	—	—	140	—	164	—	284	—	308	—	—
—	—	2	—	—	—	38	—	63	—	42	—	71	—	5	—
2	14,280	—	16,632	—	—	—	1,370	—	1,370	55	30,122	55	—	—	—
—	62.21.14	—	69.25.24	—	.26.35	—	69.22.09	—	91.09.07	—	197.09.15	—	267.08.08	—	3.17.47
21	—	26	—	—	—	26	—	37	—	85	—	112	—	3	—

TABLE NO. XL.

RESULTS OF CONSTRUCTION WORKS—*Continued.*

Line	Light Railway Lines					
Item	Area of ground acquired during the year under review			Total area of ground acquired from the commencement up to the end of the year under review		
Area			*se.bu* 1881.14			*se.bu* 1881.14
Item	Completed during the year under review			Total completed from the commencement up to the end of the year under review		Not completed by the end of the year under review
	No.		dimension	No.	dimension	No.	dimension
Earth works:—							
Cuttings and embankments	—	*c.t.*	46,951	—	52,393	—	25,661
Retaining walls	—	*s.t.*	19	—	19	—	100
Fascine work, etc.	—	*ken*	126	—	126	—	480
Bridges:—							
Bridges	*place* 7	*ft.*	182	7	182	10	158
Others	—		—	—	—	—	—
Culverts:—							
Open and covert	*place* 8	*ft.*	48	8	48	32	212
Drains:—							
Earthen pipes	*place* 183	*ft.*	6,222	183	6,222	26	806
Permanent ways:—							
Ballasting	—	*c.t.*	3,240	—	3,240	—	—
Plate-laying	—	*m.ch.*	12.00	—	12.00	—	—
Switches and crossings	*set* 23		—	23	—	—	—
Indicators	*piece* —		343	—	343	—	—
Dead ends and level crossings paved with board	*place* 12		—	12	—	—	—
Stations:—							
Buildings	*building* 32	*tsubo*	485	32	485	23	351
Signals	*piece* 16		—	16	—	—	—
Interlockings	*set* 2		—	2	—	—	—
Platforms	*place* 12	*ft.*	2,310	12	2,310	6	2,158
Wooden walls	*place* —	*ft.*	756	—	756	—	3,918
Sundries	21		—	21	—	11	—
Overbridges	*place* 2		—	2	—	—	—
Sundry buildings:—							
Watch-boxes and Stores	*building* 27	*tsubo*	378	27	378	36	521
Wells	5		—	5	—	8	—
Fences and boundary posts:—							
Fences	—	*ft.*	4,895	—	4,895	—	6,072

TABLE NO. XLI.

PROGRESS OF OPEN LINES IN THE MAIN ISLAND, SHIKOKU AND KYUSHU.

(March 31st., 1912.)

OPEN LINES.

Line / Year	O-U Line *m.c.l.*	Central Line *m.c.l.*	San-in Line *m.c.l.*
1894—95	Aomori-Hirosaki Section 12.35.		
1895—96			
1896—97			
1897—98			
1898—99			
1899—1900	Fukushima-Yonezawa Section 25.23. Ikarigaseki-Shirasawa Section 10.79. Shirasawa-Odate Section 4.05. Total 40.28.		
1900—01	Yonezawa-Akayu Section 9.77. Akayu-Kaminoyama Section 11.57. Odate-Takanosu Section 11.18. Total 32.72.	Nagoya-Tajimi Section 22.42.	
1901—02	Kaminoyama-Yamagata Section 7.40. Yamagata-Tateoka Section 16.32. Tateoka-Oishida Section 8.30. Takanosu-Hataori Section 18.26. Total 50.48.	Hachioji-Uenohara Section 14.00.	
1902—03	Oishida-Funagata Section 8.26. Noshiro-Gojonome Section 17.23. Gojonome-Akita Section 17.75. Total 43.44.	Uyenohara-Torisawa Section 7.00. Torisawa-Otsuki Section 4.14. Otsuki-Hajikano Section 11.1. Tajimi-Nakatsu Section 27.10. Total 49.25.	Sakai-Mikuriya Section 22.68.
1903—04	Funagata-Shinjo Section 5.10. Akita-Wada Section 8.18. Total 13.28.	Hajikano-Kofu Section 16.65. Kofu-Nirasaki Section 7.66. Total 24.51.	Mikuriya-Yabase Section 11.4. Yabase-Kurayoshi Section 9.56. Kurayoshi-Matsuzaki Section 3.32. Total 24.12.
1904—05	Wada-Jinguji Section 20.14. Jinguji-Omagari Section 3.59. Shinjo-Innai Section 28.38. Total 52,31.	Nirasaki-Fujimi Section 21.24.	
1905—06	Omagari-Yokote Section 11.46. Innai-Yuzawa Section 9.73. Yokote-Yuzawa Section 11.73. Total 32.52.	Fujimi-Okaya Section 17.6.	Matsuzaki-Aoya Section 7.32.
1906—07		Okaya-Shiojiri Section 16.73.	
1907—08	Tsuchizaki Branch Line. 1.14.		Aoya-Tottori (temporary) Section 3.02.
1908—09	Noshiro Branch Line. 2.40.	Nakatsu-Sakashita Section 6.13.	Wadayama-Yoka Section 7.55. Tottori (temporary)—Tottori Section 1.6. Yonago-Yasuki Section 5.39. Yasuki-Matsue Section 12.41. Total 26.61.
1909—10		Sakashita-Midono Section 5.51. Midono-Nojiri Section 5.60. Nojiri-Suhara Section 4.15. Shiojiri-Narai Section 12.36. Total 28.72.85.5.	Yoka-Toyooka Section 10.55. Toyooka-Kinosaki Section 6.26. Matsue-Shinji Section 11.5.3. Total 28.06.03.
1910—11		Narai-Yabuhara Section 4.17.94.4 Yabuhara-Miyanokoshi Section 3.48.36.2 Suhara-Agematsu Section 7.01.43.7 Agematsu-Kiso-Fukushima Section 4.61.01.2 Total 19.48.75.5	Shinji-Shobara Section 2.29.97. Shobara-Izumo-Imaichi Section 7.5.90 Tottori-Iwami Section 11.10.14.3 Total 20.45.11.3
1911—12		Kiso-Fukushima-Miyanokoshi Section 5.09.	Makata Branch 0.51. Fukuchiyama-Wadayama Section 18.77. Iwami-Hamasaka Section 8.58. Hamasaka-Kasumi Section 11.09. Kinosaki-Kasumi Section 13.54. Total 53.09.
Total	305.12	225.04	196.27
	+35 chains (The switch back line at Itaya Station compound between Fukushima and Yonezawa.) +30 chains (Twice the switch back line as Toge Station compound between Fukushima and Yonezawa.)	+26 chains (Twice the switch back line at Sasago Station compound between Otsuki & Hajikano). +34 chains (Twice the switch back line at Nirasaki Station compound between Kofu & Nirasaki).	

LINES NOT YET OPEN.

TABLE NO. XLI.

PROGRESS OF OPEN LINES IN THE MAIN ISLAND, SHIKOKU AND KYUSHU.

(March 31st., 1912.)—*Continued.*

OPEN LINES.

Year \ Line	Hokuroku Line *m.c.l.*	Kagoshima Line *m.c.l.*	Maizuru Line *m.c.l.*
1894—95			
1895—96			
1896—97	Tsuruga-Fukui Section 38.42.		
1897—98	Fukui-Komatsu Section 30.1.		
1898—99	Komatsu-Kanazawa Section 18.48. Kanazawa-Takaoka Section 25.29. Takaoka-Toyama Section 11.5. Total 54.02.		
1899—1900			
1900—01			
1901—02		Kagoshima-Kokubu Section 17. 39. 75.3	
1902—03		Kokubu-Yokogawa Section 14. 41.	
1903—04		Yokogawa-Yoshimatsu Section 8.55.	
1904—05			Fukuchiyama-Shin-Maizuru Section 24. 26. 72.6 Maizuru Shore Line 0.78. Maizuru Naval Yard Line 0. 69. 15. Total 20.13.90.6
1905—06			
1906—07			
1907—08			
1908—09		Kyushu Junction Line 1.36. Yatsushiro-Hitoyoshi Section 32.78. Total 34.34.	
1909—10		Hitoyoshi-Yoshimatsu Section 21.16.	
1910—11			Ayabe-Sonobe Section 26. 01. 55.9
1911—12			
Total	122.45	96.25.73.4	52.20. 46.5
		−0.11.75.3 (Distance from the centre to the terminus at Kagoshima Station compound). −0.64.15.7 (Distance between old and new Yatsushiro Stations).	−0.18.75.6 (Distance from the centre to the terminus at Shin-Maizuru Station compound). −0.13 (Distance from the centre of Maizuru Station compound to the terminus of Shore line). −0.31.85 (Distance from the centre of Shin-Maizuru Station compound to the terminus of spur).

LINES NOT YET OPEN.

TABLE NO. XLI.

PROGRESS OF OPEN LINES IN THE MAIN ISLAND, SHIKOKU AND KYUSHU.

(March 31st., 1912.)—*Continued.*

OPEN LINES.

Year \ Line	Shinonoi Line m.c.l.	Kure Line m.c.l.	Toyama Line m.c.l.	Oita Line m.c.l.
1894—95				
1895—96				
1896—97				
1897—98				
1898—99				
1899—1900				
1900—01	Shinonoi-Nishijo Section 17. 64.			
1901—02				
1902—03	Nishijo-Matsumoto Section 15. 22. Matsumoto-Shiojiri Section 8. 41. Total 23. 63.			
1903—04		Kaitaich-Kure Section 12. 46. 24		
1904—05				
1905—06				
1906—07				
1907—08				
1908—09			Toyama-Uozu Section 17. 65. 29.3	
1909—10				Yanagigaura-Usa Section 4.33.
1910—11			Uozu-Tomari Section 14. 66. 92.	Usa-Nakayamaga Section 8. 79. 39.1 Nakayamaga-Hiji Section 10. 28. 22. 6 Total 19. 27. 61.7
1911—12			Naoetsu-Natachi Section 9. 77. 22. 3	Hiji-Beppu Section 8. 53. 00.3 Beppu-Oita Section 7. 48. 77.9 Total 16. 21. 78. 2
Total	41.47.00	12.46.24	42.49.43.6	39.66.78.2
	+0.32 (Twice the switch back line at Obasute Station compound). +7.0 (Lines belonging to the Central line at Shiojiri Station compound).	−0.01.24 (Distance from the centre to the terminus at Kure Station compound).	−0.35.92 (Distance from from the centre to the terminus at Tomari Station compound). −0.58 (Distance from the centre to the terminus at Natachi Station compound).	

LINES NOT YET OPEN.

			Tomari Natachi Section 32. 77. 79. 6 Uozu branch 0.67.00 Total 33.64.79.6	

TABLE NO. XLI.

PROGRESS OF OPEN LINES IN THE MAIN ISLAND, SHIKOKU AND KYSHU.

(March 31st., 1912).—*Continued.*

OPEN LINES

Line / Year	Gan-Etsu Line *m.c.l.*	Uno Line *m.c.l.*	Toba Line *m.c.l.*	Sendai Line *m.c.l.*
1894—95				
1895—96				
1896—97				
1897—98				
1898—99				
1899—1900				
1900—01				
1901—02				
1902—03				
1903—04				
1904—05				
1905—06				
1906—07				
1907—08				
1908—09				
1909—10				
1910—11	Niitsu-Maoroshi Section 10.73.00 Kitakata-Yamato Section 6.39.04.33 Total 17.32.04.33	Okayama-Uno Section 20.36.69.8		
1911—12			Yamada-Toba Section 8.67.81.2	
Total	17.32.04.33	20.36.69.8	8.67.81.2	
	—0.16.77.87 (Distance from the centre to the terminus at Maoroshi Station compound). —0.21.4.33 (Distance from the centre to the terminus at Yamato Station compound).	—0.6.69.8 (Distance from the centre to the terminus at Uno Station compound).	—0.5.25 (Distance from the centre to the terminus at Toba Station compound).	

LINES NOT YET OPEN.

	Yomato-Maoroshi Section 41.26.5.35			Kagoshima-Sendai Section 31.03.94

PROGRESS OF OPEN LINES IN THE MAIN ISLAND, SHIKOKU AND KYUSHU.

(March 31st., 1912.)—*Continued.*

OPEN LINES.

Year \ Line	Miyazaki Line *m. c. l.*	Shinjo Line *m. c. l.*	Boso Line *m. c. l.*
1894—95			
1895—96			
1896—97			
1897—98			
1898—99			
1899—1900			
1900—01			
1901—02			
1902—03			
1903—04			
1904—05			
1905—06			
1906—07			
1907—08			
1908—09			
1909—10			
1910—11			
1911—12			Naruto-Togane Section 4.70.52. Soga-Anegasaki Section 9.59.91.8 Total 14.45.43.8
Total			14.45.43.8
			—0.27.50 (Distance from the centre to the terminus at Anegasaki station compound)

LINES NOT YET OPEN.

Yoshimatsu-Miyazaki Section 66. 26. 14. 7	Kogota-Shinjo Section Shinjo-Sakata Section } 90. 52. 63 Sakata branch 1. 34. 00 Total 92.06.63	Anegasaki-Kisarazu Section 10.24.95.4 Obara-Katsuura Section 8.77.38.1. Funabashi-Sakura Section 14.42.75. Total 33.65.08 5

TABLE NO. XLI.

PROGRESS OF OPEN LINES IN THE MAIN ISLAND, SHIKOKU AND KYUSHU.

(March 31st., 1912).—*Continued.*

OPEN LINES.

Line / Year	Shibata Line *m c.l.*	Taira Line *m.c.l.*	Hamada Line *m c.l.*	Taisha Line *m.c.l.*
1894—95				
1895—96				
1896—97				
1897—98				
1898—99				
1899--1900				
1900—01				
1901—02				
1902—03				
1903—04				
1904—05				
1905—06				
1906—07				
1907—08				
1908—09				
1909—10				
1910—11				
1911—12				
Total				

LINES NOT YET OPEN.

	Niitsu-Shibata Section 16. 46.10.8	Koriyama-Taira Section 53. 13.61.39	Izumoimaichi - Hamada Section 56.20.05.7	Izumoimaichi-Taisha Section 4.65.80

TABLE NO. XLI.

DIAGRAM SHOWING PROGRESS OF OPEN LINES IN THE MAIN ISLAND, SHIKOKU AND KYUSHU.

(March 31st 1912)

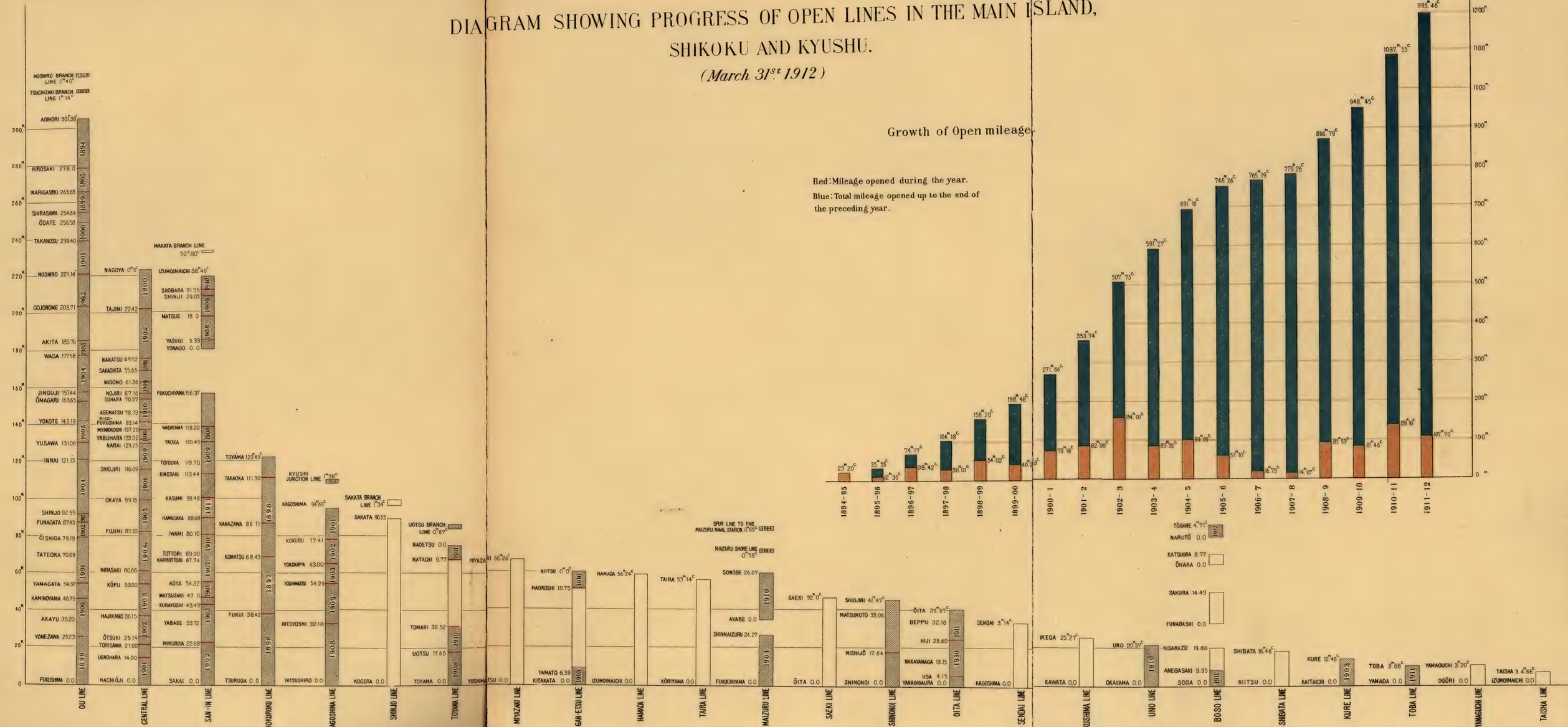


TABLE NO. XLI.

PROGRESS OF OPEN LINES IN THE MAIN ISLAND, SHIKOKU AND KYUSHU.

(March 31st., 1912).—*Continued.*

OPEN LINES.

Line / Year	Yamaguchi Line	Tokushima Line	Saeki Line	Total route mileage of open lines	Total track mileage of open line
1894—95				*m. c. l.* 23. 20.00	*m. c.*
1895—96				12. 35.00	35. 55
1896—97				38. 42.00	74. 17
1897—98				30. 01.00	104. 18
1898—99				54. 02.00	158. 20
1899—1900				40. 28.00	198.48
1900—01				73. 18.00	271. 66
1901—02				*m. c. l.* 82. 07. 73.4	*m. c. l.* 353. 73. 73.4
1902—03				*m. c.* 154. 01	507. 74. 73.4
1903—04				*m. c. l.* 83. 32. 24	591. 26. 97.4
1904—05				99. 68. 90.6	691. 15.88
1905—06				*m. c. l.* 57. 10.00	748. 25.88
1906—07				16. 73.00	765. 18.88
1907—08				14. 07.00	779. 25.88
1908—09				*m. c. l.* 87. 53.29.3	866. 79. 17.3
1909—10				*m. c.* 81. 46	8. 45. 17.3
1910—11				*m. c. l.* 139. 10. 26.36	1,087. 55. 43.66
1911—12				107. 70. 21.17	1,195. 45. 64.83
Total				1,195. 45. 64.83	

LINES NOT YET OPEN.

	m. c. l. Kogori-Yamaguchi Section 8.20.43.66	*m. c. l.* Kawada-Ikeda Section 25.27.14	*m. c. l.* Oita-Saeki Section 42.00.00	

TABLE NO. XLII.

DIAGRAM SHOWING PROGRESS OF OPEN LINES IN HOKKAIDO.

(March 31st., 1912).

OPEN LINES

Year \ Line	Teshio Line	Tokachi & Kushiro Line	Nemuro Line	Abashiri Line	Rumoi Line	Shimo-Furano Line	Total rout mileage of open lines	Total track mileage of open lines
	m. c. l.	*m. c. l.*		*m. c. l.*	*m. c. l.*		*m. c.*	*m. c.*
1898—99	Asahigawa-Nagayama Section 5.58 Nagayama-Ranru Section 8.32 Total 14.10						14.10	—
1899—1900	Ranru-Wassamu Section 8.31	Tokachi Line:— Asahigawa-Biei Section 14.61 Biei-Kami-Furano Section 9.69 Total 24.50					33.01	47.11
1900—01		Kami-Furano-Shimo-Furano Section 9.20 Shimo-Furano-Shikagoe Section 22.72 Total 32.12					43.05	90.16
1901—02		Shikagoe-Ochiai Section 10.41 Kushiro Line:— Kushiro-Shiranuka Section 17.24 Total 27.65					27.65	118.01
1902—03		Shiranuka-Onbetsu Section 9.76					9.76	127.77
1903—04	Shibetsu-Nayoro Section 13.65	Onbetsu-Urahoro Section 20.71					34.56	162.77
1904—05		Urahoro-Toyokoro Section 8.13 Toyokoro-Toshibetsu Section 10.34 Total 18.65					18.65	162.38
1905—06		Toshibetsu-Obihiro Section 13.30					13.30	194.68
1907—08		Tokachi Line:— Ochiai-Obihiro Section 44.46					44.46	239.34
1910—11				Ikeda-Rikunbetsu Section 48.08.	Fukagawa-Rumoi Section 31.09.		79.17	318.51
1911—12	Nayoro-Onnenai Section 22.28			Rikunbetsu-Nokkeushi Section 38.73			61.21	379.72
Total	*m. c.* 69.47	*m. c.* 192.15		*m. c.* 87.01	*m. c.* 31.09		*m. c.* 379.72	

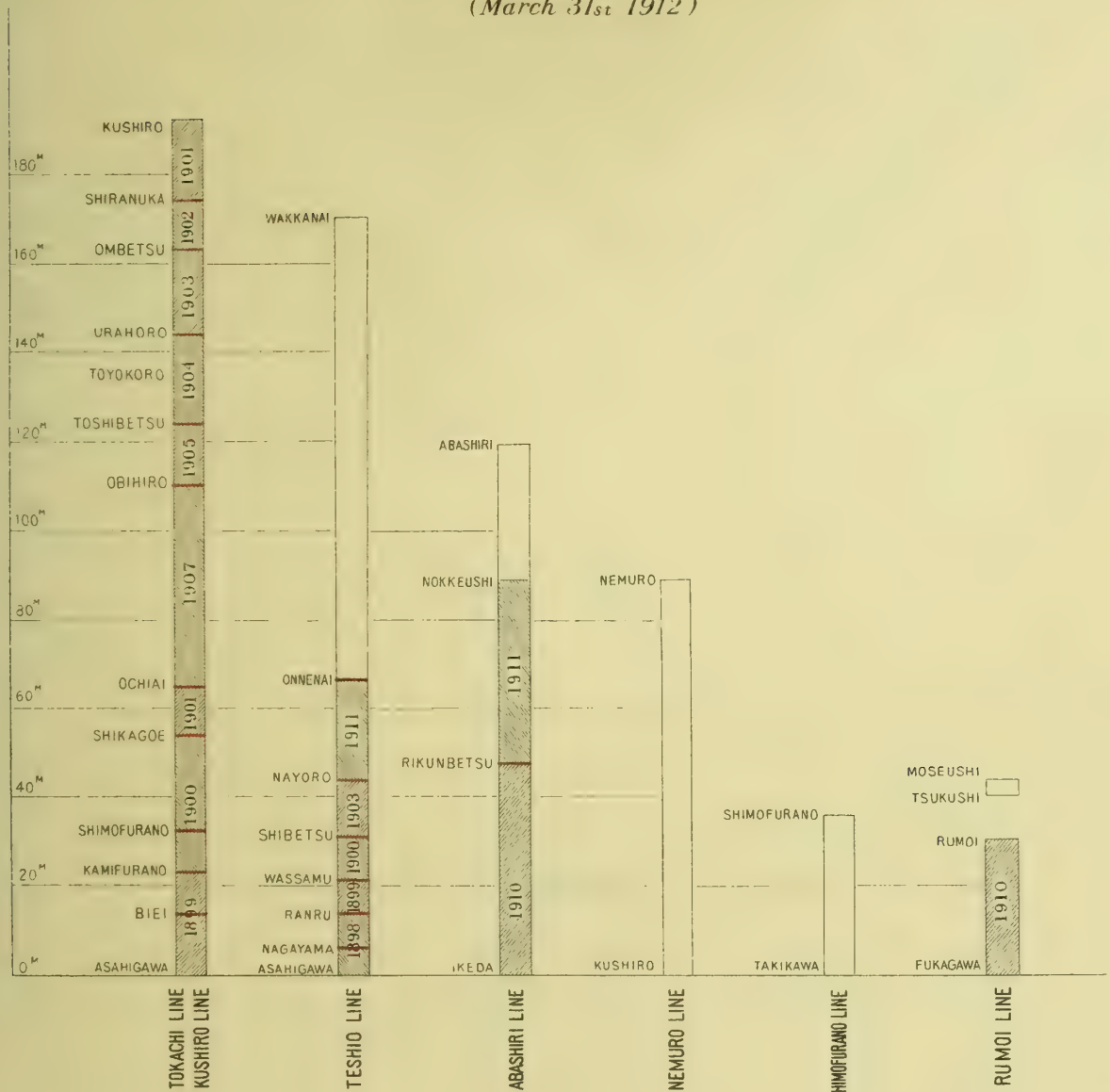
LINES NOT YET OPEN

	Onnenai-Wakkanai Section *m. c. l.* 98.62.55.7		Kushiro-Nemuro Section *m. c.* 89.42	Nokkeushi-Abashiri Section *m. c. l.* 32.78.01.8	Moseushi-Tsukushi Section *m. c. l.* 3.47.43.6	Takigawa-Shimofurano Section *m. c. l.* 36.13.56.5		

TABLE NO. XLII.

DIAGRAM SHOWING PROGRESS OF OPEN LINES IN HOKKAIDO.

(March 31st 1912)



Growth of Open Mileage.

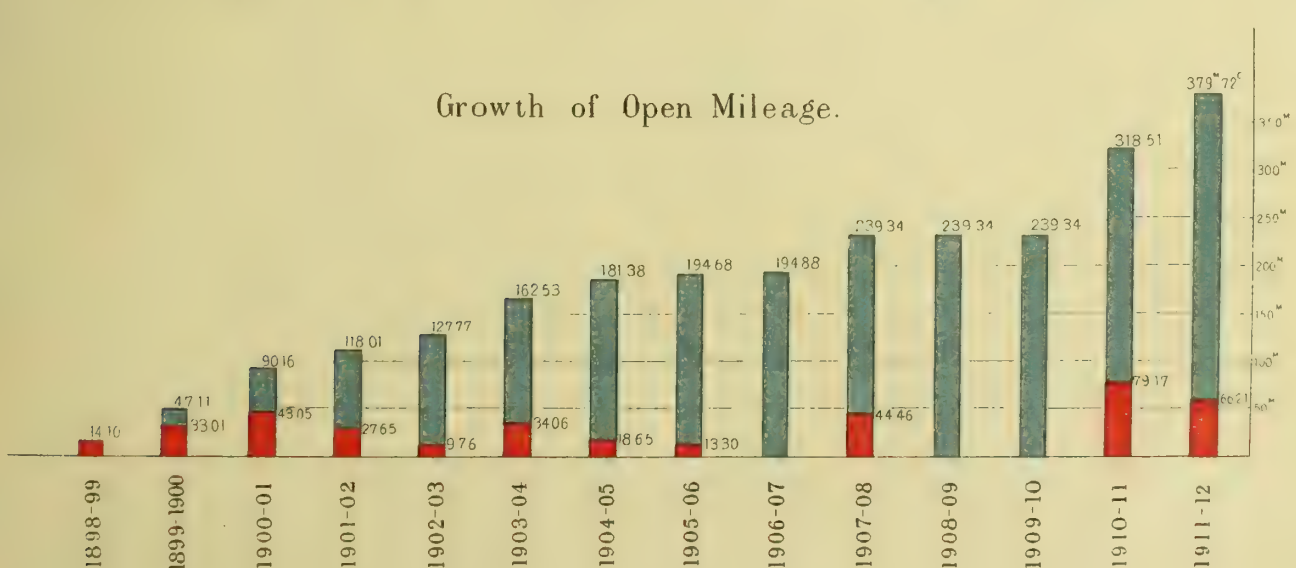


TABLE NO. XLIII.

ACCIDENTS TO TRAINS AND TRACKS.

Description \ Jurisdiction		Eastern Div. Sup't. Office	Central Div. Sup't. Office	Western Div. Sup't. Office	Kyushu Div. Sup't. Office	Hokkaido Div. Sup't. Office	Yonago Branch Office	Total
Derailed	Number of accidents	61	79	95	40	73	—	348
	Number of Locomotives	37	49	48	17	37	—	188
	Number of Carriages	8	23	23	1	11	—	66
	Number of Wagons	87	61	69	48	139	—	404
Collisions	Locomotives	4	5	16	5	7	1	38
	Passenger trains	2	6	10	—	7	2	27
	Goods trains	8	8	—	3	10	—	29
	Cars and wagons	5	5	22	2	29	—	63
Overturned	Number of accidents	10	16	12	17	11	—	66
	Number of Locomotives	2	5	1	4	3	—	15
	Number of Carriages	—	6	4	15	3	—	28
	Number of Wagons	33	43	11	29	26	—	142
Trains detached		5	4	7	9	52	—	77
Trains of cars misguided		4	19	9	2	7	—	41
Caused by defects in	Locomotives	207	255	165	61	176	4	868
	Carriages	6	12	15	13	22	—	68
	Wagons	19	49	34	30	159	—	291
	Electric cars	1	38	—	—	—	—	39
Track obstructed	Natural cause	26	31	18	16	56	3	150
	Artificial cause	2	2	9	—	—	—	13
Trains obstructed	Natural cause	—	—	1	—	1	—	2
	Artificial cause	70	40	45	43	16	—	214
Cars overrunning		3	7	6	3	5	2	26
Fires		87	12	12	7	37	—	155
Others		2	3	10	1	—	—	16
Total		522	591	486	252	668	12	2,531

TABLE NO. XLIV.

ACCIDENTS TO SHIPS.

Description \ Jurisdiction	Shimonoseki-Fusan	Shimonoseki-Moji	Uno-Takamatsu	Miyajima-Itsukushima	Maizuru-Obama	Maizuru-Sakai	Maizuru-Miyatsu	Aomori-Hakodate	Total
Collisions	1	1	—	—	—	—	—	3	5
Running aground	—	—	—	—	—	—	1	1	2
Touching	8	2	4	—	—	—	—	3	17
Delayed or stopped above two hours	28	—	17	2	18	39	15	16	135
Others	26	3	2	—	1	5	4	3	44
Total	63	6	23	2	19	44	20	26	203

TABLE NO. XLV.

CASUALTIES CAUSED BY ACCIDENTS, NEGLIGENCE AND SUICIDE.

Description		Jurisdiction	Eastern Div. Sup't. Office	Central Div. Sup't. Office	Western Div. Sup't. Office	Hokkaido Div. Sup't. Office	Kyushu Div. Sup't. Office	Yonago Branch Office	Total
Passengers	Accidents	Deaths	—	—	—	2	—	—	2
		Injuries	13	28	83	55	4	—	183
	Negligence	Deaths	1	4	1	—	2	—	8
		Injuries	23	56	36	18	6	—	139
	Suicide	Deaths	1	2	1	—	—	—	4
		Injuries	—	2	2	1	—	—	5
	Cause unknown	Deaths	—	1	—	—	—	—	1
		Injuries	—	—	1	—	—	—	1
	Total	Deaths	2	7	2	2	2	—	15
		Injuries	36	86	122	74	10	—	328
Railway Staff	Accidents	Deaths	2	8	1	—	—	—	11
		Injuries	23	30	24	20	32	1	130
	Negligence	Deaths	17	20	28	21	13	—	99
		Injuries	137	289	225	131	230	11	1,023
	Suicide	Deaths	4	—	1	—	—	—	5
		Injuries	—	—	—	—	—	—	—
	Cause unknown	Deaths	—	—	—	1	—	—	1
		Injuries	—	1	—	1	—	—	2
	Total	Deaths	23	28	30	22	13	—	116
		Injuries	160	320	249	152	262	12	1,155
Others	Accidents	Deaths	—	—	—	—	—	—	—
		Injuries	3	1	3	2	2	—	11
	Negligence	Deaths	74	99	72	57	30	1	333
		Injuries	79	98	102	80	58	3	420
	Suicide	Deaths	321	462	268	114	16	11	1,192
		Injuries	40	33	36	3	6	1	119
	Cause unknown	Deaths	13	4	8	5	1	—	31
		Injuries	1	—	—	1	—	—	2
	Total	Deaths	408	565	348	176	47	12	1,556
		Injuries	123	132	141	86	66	4	552
Grand total		Deaths	433	500	380	600	62	12	1,687
		Injuries	319	538	512	312	338	16	2,035

TABLE NO. XLVI.

VIOLATION OF RAILWAY RULES.

Description	Jurisdiction	Eastern Div. Sup't. Office	Central Div. Sup't. Office	Western Div. Sup't. Office	Kyushu Div. Sup't. Office	Hokkaido Div. Sup't. Office	Yonago Branch Office	Total
Placing obstacles on tracks		26	17	28	21	7	1	100
Getting on or jumping down trains in motion		14	23	14	26	8	—	85
Opening doors of trains in motion		2	8	30	6	—	2	48
Entering railway compounds without permission		—	23	169	69	—	—	261
Throwing stones at trains		58	61	35	51	12	1	218
Firing at trains		1	1	2	1	—	—	5
Breaking signals or signal lamps		4	4	1	1	—	—	10
Tampering with alarm bells		—	2	2	—	—	—	4
Getting aboard with explosives		—	—	1	—	3	1	5
Selling in cars		3	—	12	—	—	—	15
Firing in trains		—	—	1	—	—	—	1
Climbing roofs of trains in motion		—	—	—	1	—	—	1
Commiting nuisance		4	—	—	—	—	4	8
Total		112	139	295	176	30	9	761

TABLE NO. XLVII.

CASUALTIES OF RAILWAY OFFICIALS IN DISCHARGE OF DUTIES.

Description \ Jurisdiction	Head Office		Easten Div. Sup't. Office		Central Div. Sup't. Office		Western Div. Sup't. Office		Kyushu Div. Sup't. Office		Hokkaido Div. Sup't. Office		Yonago Branch Office		Construction Offices		Grand total		Inc. or dec. (△) against preceding year	
	Deaths	Injuries	Deaths	Injuries	Deaths	Injuries	Deaths	Injuries	Deaths	Injuries	Deaths	Injuries	Deaths	Injuries	Deaths	Injuries	Deaths	Injuries	Injuries	Deaths
Officials of higher grade :—																				
Accidents	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	△ 1
Negligence	—	—	—	—	—	1	—	1	—	—	—	1	—	—	—	—	—	3	—	2
Cause unknown	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	1	—	1	—	—	—	1	—	—	—	—	—	3	—	1
Offic als of lower grade :—																				
Accidents	—	—	—	4	—	2	—	5	—	2	—	1	—	—	—	1	—	15	—	2
Negligence	—	—	1	7	—	4	—	8	—	1	1	7	—	—	—	—	2	27	2	1
Cause unknown	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	△ 6
Total	—	—	1	11	—	6	—	13	—	3	1	8	—	—	—	1	2	42	2	△ 3
Employees :—																				
Accidents	—	—	2	47	3	45	4	104	—	1	1	20	—	—	—	—	10	217	3	△ 26
Negligence	—	—	3	124	8	249	4	87	—	50	2	77	—	7	—	1	17	595	△ 3	118
Cause unknown	—	1	—	2	—	2	—	—	—	—	—	—	—	—	—	—	—	5	△ 1	△ 6
Total	—	—	5	173	11	296	8	191	—	51	3	97	—	7	—	1	27	817	△ 1	86
Workmen :—																				
Accidents	—	1	3	1,119	13	879	4	2,898	1	155	5	261	—	3	—	20	26	5,336	2	198
Negligence	—	3	31	3,063	57	5,063	49	2,004	36	1,198	20	695	—	26	—	16	193	12,068	55	2,551
Cause unknown	—	—	—	11	1	—	—	—	—	—	1	128	—	1	—	—	2	140	△ 3	△ 635
Total	—	4	34	4,193	71	5,942	53	4,902	37	1,353	26	1,084	—	30	—	36	221	17,544	50	2,114
Grand total	—	5	40	4,377	82	6,245	61	5,107	37	1,407	1,190	1,190	—	37	—	38	250	18,406	51	2,198

TABLE NO.

SUBSIDIES TO RELIEF

According to the

Kind / Grade / Recipients classified / Grants classified	Injuries							
	1st grade				2nd grade		3rd grade	
	No.	Injury grants	No.	Injury grants	No.	Death grants	No.	Injury grants
		yen		*yen*		*yen*		*yen*
Station masters	—	—	—	—	—	—	—	—
Assistant station masters	—	—	—	—	—	—	—	—
do., in reserve	—	—	—	—	—	—	—	—
Yard masters	—	—	—	—	—	—	—	—
Conductors	7	3,393.00	7	1,983.22	—	—	1	336.00
Booking agents	—	—	—	—	—	—	—	—
Ticket examiners	1	405.00	1	249.07	—	—	—	—
Goods agents	1	630.00	1	150.91	—	—	—	—
Parcels agents	—	—	—	—	—	—	—	—
Telegraph operators	—	—	—	—	—	—	—	—
Assistant clerks, station service	—	—	—	—	—	—	—	—
Railway guides	—	—	—	—	—	—	—	—
Conductors, acting	4	1,557.00	3	834.84	—	—	1	210.00
Shunters	3	2,133.00	3	665.66	—	—	1	207.00
Numbertakers	—	—	—	—	—	—	—	—
Signal tower men	1	432.00	1	153.35	—	—	—	—
Foremen, porters	—	—	—	—	—	—	—	—
Brakemen	5	1,908.00	5	1,280.18	1	290.40	4	720.00
Pointmen	8	3,778.00	8	1,888.46	1	374.40	6	1,284.30
Policemen	—	—	—	—	—	—	—	—
Porters, goods	9	3,204.00	4	512.83	—	—	2	369.00
Lamp tenders	1	333.00	1	249.78	—	—	3	503.70
Coupler hands	43	14,062.50	28	5,940.59	4	1,053.60	19	219.30
Porters	41	11,313.00	12	2,315.83	2	486.60	27	3,730.50
Train boys	—	—	—	—	—	—	—	—
Collection-and-delivery men, goods	—	—	—	—	—	—	—	—
Roundhouse master's assistants	—	—	—	—	—	—	—	—
Engine drivers	8	6,002.00	7	1,907.74	—	—	2	1,353.00
do., acting	—	—	—	—	—	—	—	—
do., apprentice	—	—	—	—	—	—	—	—
Firemen	7	3,042.00	7	2,[illegible]3.01	—	—	1	256.20
do., acting	—	—	—	—	—	—	—	—
do., apprentice	1	367.00	1	269.41	—	—	—	—
Engine cleaners	1	27/.00	1	190.63	—	—	1	147.00
Signalmen	—	—	—	—	—	—	1	179.40
Greazers	1	387.00	1	122.41	—	—	1	283.20
Coal-and-pumping men	4	1,386.00	3	528.99	—	—	1	202.88
Cleaners	—	—	—	—	—	—	1	135.00
Cleaners, pass. cars	2	792.00	1	38.41	—	—	—	—
Inspectors, cars	4	2,/16.00	4	1,102.84	—	—	—	—
Inspectors' helpers, cars	1	378.00	1	209.38	—	—	—	—
Enginmen, feeder service	—	—	—	—	—	—	—	—

XLVIII.

ASSOCIATION

Kinds of Employment.

on duty.						Injuries not on duty		Grand total				
4th grade		5th grade		Medical allowance				Sum				
No.	Injury grants	No.	Injury grants	No.	Sum	No.	Death grants	No.	Death grants	Injury grants	Medical allowance	Total
	yen		*yen*		*yen*		*yen*		*yen*	*yen*	*yen*	*yen*
—	—	—	—	2	76.92	1	381.94	3	381.94	—	76.92	458.86
—	—	1	23.70	20	493.59	3	1,033.51	24	1,033.51	23.70	493.59	1,550.80
—	—	1	21.00	4	97.25	2	738.73	7	738.73	21.00	97.25	856.98
—	—	1	36.60	—	—	—	—	1	—	36.60	—	36.60
2	344.70	2	81.00	106	2,152.57	20	5,861.41	145	7,844.63	4,154.70	2,152.57	14,151.90
—	—	—	—	3	28.68	13	3,926.06	16	3,926.06	—	28.68	3,954.74
1	237.60	—	—	1	1.05	6	1,539.67	10	1,788.74	642.60	1.05	2,432.39
—	—	1	58.50	9	175.70	11	3,265.79	23	3,416.70	688.50	175.70	4,280.90
—	—	—	—	7	61.42	5	1,380.14	12	1,380.14	—	61.42	1,441.56
—	—	—	—	1	250.79	16	4,781.70	17	4,781.70	—	250.79	5,032.49
—	—	—	—	—	—	2	634.95	2	634.95	—	—	634.95
—	—	—	—	—	—	1	433.45	1	433.45	—	—	433.45
1	211.20	2	91.80	41	1,387.16	3	989.43	55	1,824.27	2,070.00	1,387.16	5,281.43
1	90.30	1	18.00	49	970.55	6	1,639.10	64	2,304.76	2,448.30	970.55	5,723.61
—	—	—	—	2	8.87	1	112.94	3	112.94	—	8.87	121.81
—	—	1	15.00	10	59.36	4	638.16	17	791.51	447.00	59.36	1,297.87
—	—	—	—	7	226.62	—	—	7	—	—	226.62	226.62
4	369.00	5	100.80	88	4,680.97	5	1,185.00	117	2,415.18	3,388.20	4,680.97	10,534.35
3	538.70	8	284.70	107	4,648.25	17	3,228.51	158	5,116.97	6,185.10	4,648.25	15,950.32
1	198.00	1	14.10	11	817.57	5	1,041.77	18	1,041.77	212.10	817.57	2,071.44
2	275.70	1	36.00	238	4,017.63	15	2,268.81	271	2,781.64	3,884.70	4,017.63	10,683.97
2	273.60	—	—	28	685.62	1	200.25	36	450.03	1,110.30	685.62	2,245.95
8	795.60	23	609.60	428	12,431.34	—	—	553	5,940.59	19,740.60	12,431.34	38,112.53
11	1,197.00	22	463.50	351	11,421.63	24	4,419.30	490	6,735.13	17,190.60	11,421.63	35,347.36
—	—	—	—	2	111.02	2	488.90	4	488.90	—	111.02	599.92
—	—	—	—	13	44.69	2	492.37	15	492.37	—	44.69	537.06
—	—	—	—	3	51.19	—	—	3	—	—	55.19	51.19
2	554.40	1	25.00	166	2,013.46	19	5,868.67	205	7,776.41	7,934.40	2,013.46	17,724.27
—	—	—	—	2	4.86	—	—	2	—	—	4.86	4.86
—	—	—	—	9	79.26	—	—	9	—	—	79.26	79.26
1	144.00	5	255.00	237	2,942.33	17	4,650.89	275	6,653.90	3,967.20	2,942.33	13,293.43
—	—	—	—	4	39.15	—	—	4	—	—	39.15	39.15
—	—	1	45.60	48	768.68	1	206.88	52	476.29	405.60	768.68	1,650.57
3	293.10	—	—	118	2,158.82	5	903.63	129	1,094.26	710.10	2,158.82	3,963.18
—	—	—	—	21	423.50	1	202.31	23	202.31	179.40	423.50	805.21
1	108.00	—	—	25	351.37	1	169.01	30	291.42	778.20	351.37	1,420.99
3	377.10	5	107.10	177	1,655.23	5	659.29	198	1,188.28	2,073.00	1,655.23	4,916.51
—	—	1	9.00	26	510.48	—	—	28	—	144.00	510.48	654.48
—	—	1	6.00	33	269.86	2	92.72	39	131.13	735.00	269.86	1,135.99
—	288.00	—	—	60	966.41	7	1,619.10	76	2,721.94	2,304.00	966.41	5,992.35
—	—	—	—	17	139.87	2	629.01	21	838.39	378.00	139.87	1,356.26
—	—	—	—	4	11.53	1	136.96	5	136.96	—	11.53	148.49

TABLE

SUBSIDIES TO RELIEF

According to the Kinds

Kind / Grade / Recipients classified / Grants classified	Injuries suffered							
	1st grade				2nd grade		3rd grade	
	No.	Injury grants	No.	Death grants	No.	Injury grants	No.	Injury grants
		yen		*yen*		*yen*		*yen*
Firemen, feeder service	—	—	—	—	—	—	—	—
Watchmen, general articles	—	—	—	—	—	—	—	—
Electric light examiners	—	—	—	—	—	—	—	—
do., apprentice	—	—	—	—	—	—	—	—
Electric car drivers	—	—	—	—	—	—	—	—
Student drivers, electric car	—	—	—	—	—	—	—	—
Enginemen, generating	—	—	—	—	—	—	—	—
Inspectors, electric cars	—	—	—	—	—	—	—	—
Tenders, electric machines	—	—	—	—	—	—	—	—
Foreman labourers, electric apparatus	1	675.00	1	86.39	—	—	—	—
Labourers, electric wiring, etc.	4	2,169.00	2	266.41	—	—	—	—
Workmen, electric apparatus	—	—	—	—	—	—	—	—
Trackmaster's assistants	—	—	—	—	—	—	—	—
Foremen, track gang	—	—	—	—	—	—	—	—
Trackmen	37	15,723.00	34	5,330.29	—	—	8	1,502.40
Machine keepers	—	—	—	—	—	—	—	—
Watchmen, bridge	—	—	—	—	—	—	1	156.00
do., tunnels	1	387.00	1	59.32	—	—	—	—
do., level crossings	8	1,863.00	6	399.59	—	—	2	425.40
Carpenters, regular employ	—	—	—	—	—	—	—	—
Master mechanics	—	—	—	—	—	—	—	—
Enginemen, shop	—	—	—	—	—	—	—	—
Mechanics, electric machines	1	585.00	1	252.21	—	—	—	—
Workmen, erecting shop	1	450.00	1	308.42	—	—	2	636.30
do., lathe shop	—	—	—	—	—	—	2	711.00
do., finishing shop	1	540.00	1	350.03	—	—	1	442.80
Smiths	1	558.00	1	294.28	—	—	—	—
Workmen, boiler shop	—	—	—	—	—	—	—	—
do., casting shop	—	—	—	—	—	—	—	—
do., pattern shop	—	—	—	—	—	—	—	—
Coppersmiths	—	—	—	—	—	—	—	—
Woodworkers	2	1,512.00	2	654.34	1	590.40	—	—
Turners	—	—	—	—	—	—	—	—
Painters	1	495.00	1	235.62	—	—	—	—
Sewers	—	—	—	—	—	—	—	—
Toolkeepers, shop	—	—	—	—	—	—	—	—
Mechanics' helpers	2	720.00	1	174.15	—	—	4	651.00
Firemen shop	—	—	—	—	—	—	1	187.20
Foremen, machine shop	—	—	—	—	—	—	—	—

NO. XLVIII.

ASSOCIATION

of Employment.—*Continued*

on duty						Injuries suffered not on duty		Grand total				
4th grade		5th grade		Medical allowance				Sum				
No.	Injury grants	No.	Injury grants	No.	Sum	No.	Death grants	No.	Death grants	Injury grants	Medical allowance	Total
	yen		*yen*		*yen*		*yen*		*yen*	*yen*	*yen*	*yen*
—	—	—	—	3	8.51	—	—	3	—	—	8.51	8.51
—	—	1	28.20	5	112.83	2	413.84	8	413.84	28.20	112.83	554.87
—	—	—	—	3	57.81	—	—	3	—	—	57.81	57.81
—	—	—	—	4	14.27	—	—	4	—	—	14.27	14.27
—	—	—	—	7	23.69	1	234.45	8	234.45	—	23.69	258.14
—	—	—	—	1	6.00	—	—	1	—	—	6.00	6.00
—	—	—	—	1	4.50	—	—	1	—	—	4.50	4.50
—	—	—	—	2	9.48	—	—	2	—	—	9.48	9.48
—	—	—	—	1	2.25	—	—	1	—	—	2.25	2.25
—	—	—	—	1	1.00	—	—	3	86.39	675.00	1.00	762.39
—	—	—	—	34	693.17	1	254.58	41	520.99	2,169.00	693.17	3,383.16
—	—	—	—	5	44.28	—	—	5	—	—	44.28	44.28
—	—	—	—	5	18.59	2	259.95	7	259.95	—	18.59	278.54
—	—	—	—	10	403.76	3	442.82	13	442.82	—	403.76	846.58
12	1,566.15	14	414.90	484	9,741.66	44	6,821.54	633	12,151.83	2,206.45	9,741.66	41,099.94
—	—	—	—	2	.90	1	218.35	3	218.35	—	.90	219.25
—	—	—	—	1	17.05	—	—	2	—	156.00	17.05	173.05
1	98.70	1	12.60	4	339.96	2	180.32	9	239.64	498.30	339.96	1,077.90
—	—	1	27.00	12	1,093.75	3	2,155.65	54	2,555.24	2,335.40	1,093.75	5,964.39
—	—	2	133.20	14	131.55	44	703.23	20	703.23	133.20	131.55	967.98
—	—	1	53.00	10	92.95	1	946.84	14	946.84	53.00	92.95	1,092.79
—	—	—	—	2	18.85	—	—	2	—	—	18.85	18.85
1	168.00	—	—	22	292.12	2	282.63	27	534.84	753.00	292.12	1,579.96
6	1,015.20	11	450.00	653	4,145.43	14	3,555.66	688	3,864.08	2,551.50	4,145.43	10,561.01
2	462.60	9	217.50	237	987.59	9	2,720.99	259	2,720.99	1,391.10	987.59	5,099.68
1	162.00	4	326.40	210	1,494.02	10	3,241.09	228	3,591.12	1,471.20	1,494.02	6,556.34
2	289.80	10	438.60	405	3,052.25	7	1,929.60	426	2,223.88	1,286.40	3,052.26	8,562.53
6	1,189.80	8	652.80	652	3,963.21	8	2,367.66	674	2,367.66	1,842.60	3,963.21	8,173.47
1	120.00	2	134.40	124	504.69	3	860.51	130	860.51	254.40	504.69	1,619.60
—	—	—	—	2	3.60	—	—	2	—	—	3.60	3.60
—	—	—	—	25	127.59	1	416.27	26	416.27	—	127.59	543.86
5	985.20	7	363.60	396	3,564.71	20	4,166.40	433	4,820.74	3,451.20	3,564.71	11,836.65
1	144.00	6	183.00	37	228.67	1	83.93	45	83.93	327.00	228.67	639.60
2	378.00	—	—	53	287.63	5	1,259.58	62	1,495.20	873.00	287.63	2,655.83
—	—	—	—	2	7.12	—	—	2	—	—	7.12	7.12
—	—	—	—	3	12.76	2	318.27	5	318.27	—	12.76	331.03
7	739.50	27	663.00	1,041	6,546.49	15	2,955.51	1,097	3,129.66	2,773.50	6,546.49	12,449.65
—	—	—	—	9	42.23	1	154.63	11	154.63	187.20	42.23	384.06
—	—	—	—	1	3.10	1	—	1	—	—	3.10	3.10

TABLE

SUBSIDIES TO

According to the Kinds

Kind / Grade / Recipients classified / Grants classified	Injuries suffered							
	1st grade				2nd grade		3rd grade	
	No.	Injury grants	No.	Death grants	No.	Injury grants	No.	Injury grants
		yen		*yen*		*yen*		*yen*
Mechanics, apprentice	1	162.00	—	—	—	—	—	—
Student mechanics	—	—	—	—	—	—	—	—
Master mechanic's assistants	—	—	—	—	—	—	—	—
Mechanics, gas engines	—	—	—	—	—	—	—	—
Foremen, construction gang	—	—	—	—	—	—	—	—
Foremen, surveying gang	—	—	—	—	—	—	—	—
Labourers, construction	1	630.00	1	350.65	—	—	1	222.60
Printers	—	—	—	—	—	—	—	—
Book binders	—	—	—	—	—	—	—	—
Guards, storehouse	1	387.00	1	166.60	—	—	—	—
Guards	—	—	—	—	—	—	—	—
Servants	1	162.00	—	—	—	—	—	—
Office boys	—	—	—	—	—	—	—	—
Watchmen	—	—	—	—	—	—	—	—
Labourers, regular employ	1	468.00	1	30.73	—	—	1	134.40
Seamen	—	—	—	—	—	—	—	—
Employees, roundhouse	—	—	—	—	—	—	—	—
do., generating station	—	—	—	—	—	—	—	—
do., section	—	—	—	—	—	—	—	—
do., communication section	—	—	—	—	—	—	—	—
do., workshop	1	247.50	1	160.09	—	—	—	—
do., work	—	—	—	—	—	—	—	—
Storekeepers	—	—	—	—	—	—	—	—
Firemen, hydraulic cranes	—	—	—	—	—	—	—	—
Employees	—	—	—	—	—	—	—	—
Clerks	—	—	—	—	—	—	—	—
Assistant engineers	—	—	—	—	—	—	—	—
Engineers	—	—	—	—	—	—	—	—
Total	219	85,382.00	156	31,716.66	9	2,795.50	95	18,205.50

NO. XLVIII.

RELIEF ASSOCIATION

of Employment.—*Continued.*

on duty						Injuries not on duty		Grand total				
4th grade		5th grade		Medical allowance				Sum				
No.	Injury grants	No.	Injury grants	No.	Sum	No.	Death grants	No.	Death grants	Injury grants	Medical allowance	Tatal
	yen		*yen*		*yen*		*yen*		*yon*	*yen*	*yen*	*yen*
—	—	1	24.00	27	124.99	1	267.13	30	267.13	186.00	124.99	578.12
—	—	1	6.00	42	247.34	2	552.66	45	552.66	6.00	247.34	806.00
—	—	—	—	12	184.15	1	555.03	13	555.03	—	184.15	739.18
—	—	—	—	2	19.00	—	—	2	—	—	19.06	19.00
—	—	1	72.00	3	22.24	1	156.36	5	156.36	72.00	22.24	250.60
—	—	—	—	17	201.60	1	229.90	18	229.90	—	201.60	431.50
2	372.60	1	30.00	34	1,329.81	6	856.09	46	1,206.74	1,255.20	1,329.81	3,791.75
—	—	—	—	2	3.88	—	—	2	—	—	3.88	3.88
—	—	—	—	—	—	1	160.60	1	160.60	—	—	160.60
—	—	—	—	3	140.77	5	827.88	10	994.48	387.00	140.77	1,522.25
1	108.00	—	—	2	115.04	—	—	3	—	108.00	115.04	223.04
—	—	1	27.00	10	101.68	3	533.27	15	533.27	189.00	101.68	823.95
—	—	—	—	7	30.82	2	384.91	9	384.91	—	30.82	415.73
—	—	—	—	1	33.80	—	—	1	—	—	33.80	33.80
2	252.30	1	14.70	128	2,300.89	22	2,773.80	150	2,804.53	869.40	2,300.89	5,974.82
—	—	2	88.80	22	137.50	—	—	24	—	88.80	137.50	226.30
—	—	—	—	4	127.28	2	706.72	6	706.72	—	127.28	834.00
—	—	—	—	1	.44	—	—	1	—	—	.44	.44
—	—	—	—	1	8.40	—	—	1	—	—	8.40	8.40
—	—	—	—	1	12.20	2	534.35	3	534.35	—	12.20	546.55
—	—	—	—	3	5.56	1	451.93	6	612.02	247.50	5.56	865.08
—	—	—	—	—	—	4	1,248.24	4	1,248.24	—	—	1,248.24
—	—	—	—	—	—	1	395.26	1	395.26	—	—	395.26
—	—	—	—	1	4.59	—	—	1	—	—	4.59	4.59
—	—	—	—	1	6.98	3	1,098.62	4	1,098.62	—	6.98	1,105.60
—	—	—	—	—	—	2	1,016.55	2	1,016.55	—	—	1,016.55
—	—	—	—	1	3.64	—	—	1	—	—	3.64	3.64
—	—	—	—	1	2.57	—	—	1	—	—	2.57	2.57
99	14,342.85	196	6,662.70	7,287	100,500.44	471	105,513.96	8,532	137,230.62	127,388.45	100,500.44	365,119.51

TABLE NO. XLIX.

MORTALITIES OF THE MEMBERS OF THE RELIEF ASSOCIATION ACCORDING TO THEIR CAUSES.

Description		Kind	Station service				Engine shed service				Work shop service				Section service				Others				Total			
		Class	A class	B class	C class	Total	A class	B class	C class	Total	A class	B class	C class	Total	A class	B class	C class	Total	A class	B class	C class	Total	A class	B class	C class	Total
Death by injuries	On duty	Run over	59	—	35	94	11	—	3	14	5	—	—	5	39	—	3	42	4	—	1	5	118	—	42	160
		Crushed	16	—	11	27	8	—	—	8	1	—	—	1	3	—	—	3	—	—	—	—	28	—	11	39
		Burnt	1	—	—	1	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	2
		Drowned	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	2	—	—	—	—	2	—	—	2
		Others	9	—	5	14	6	—	—	6	5	—	—	5	1	—	1	2	—	—	1	1	21	—	7	28
		Total	85	—	51	136	26	—	3	29	11	—	—	11	45	—	4	49	4	—	2	6	171	—	60	231
	Not on duty	Run over	2	—	—	2	—	—	—	—	—	—	—	—	5	—	1	6	—	—	—	—	7	—	1	8
		Others	3	—	—	3	—	—	—	—	—	—	—	—	1	—	—	1	—	—	—	—	4	—	—	4
		Total	5	—	—	5	—	—	—	—	—	—	—	—	6	—	1	7	—	—	—	—	11	—	1	12
Grand total			90	—	51	141	26	—	3	29	11	—	—	11	51	—	5	56	4	—	2	6	182	—	61	243
Suicide			4	—	3	7	4	—	—	4	1	—	—	1	—	—	1	1	—	—	—	—	9	—	4	13
Death from natural causes	Respiratory organs	Phthisis	55	—	—	55	24	1	1	25	22	—	1	23	8	—	1	9	9	2	1	12	118	3	3	124
		Tuberculous pleuritis	1	—	—	1	—	—	—	—	1	—	—	1	—	—	—	—	—	—	—	—	2	—	—	2
		Laryngeal tuberculosis	1	—	1	2	—	—	—	—	2	—	—	2	1	—	—	1	1	—	—	1	5	—	1	6
		Pneumonia	6	—	—	6	1	—	1	2	6	—	1	7	6	—	1	7	2	—	—	2	21	—	3	24
		Pleuritis	5	—	—	5	3	—	—	3	2	—	—	2	3	—	—	3	3	—	—	3	16	—	—	16
		Bronchitis	7	—	—	7	1	—	1	2	2	—	—	2	—	—	—	—	1	—	—	1	11	1	1	12
		Others	—	—	1	1	3	—	—	3	1	—	—	1	4	—	—	4	—	—	—	—	8	—	1	9
		Total	75	—	2	77	32	1	2	35	36	—	2	38	22	—	2	24	16	2	1	19	181	3	9	193
	Nervous system & sense organs	Tuberculous meningtis	1	—	1	2	—	—	1	1	1	—	—	1	—	—	—	—	—	—	—	—	2	—	2	4
		Meningtis	8	—	1	9	1	—	—	1	10	—	—	10	1	—	—	1	5	—	—	5	25	—	1	26
		Apoplexy	3	—	—	3	2	—	1	3	5	—	—	5	6	—	—	6	2	—	—	2	18	—	1	19
		Cerebral Hoemorrhage	—	—	2	2	1	—	—	1	1	—	—	1	1	—	—	1	1	—	—	1	4	—	2	6
		Congestion of the brain	—	—	—	—	1	—	—	1	1	—	—	1	1	—	1	2	1	—	—	1	4	—	1	5
		Cerebral anemia	—	—	—	—	—	—	—	—	1	—	—	1	—	—	—	—	—	—	—	—	1	—	—	1
		Myelitis	3	—	—	3	—	1	—	1	—	—	—	—	—	—	—	—	1	—	—	1	4	—	—	5
		Others	2	—	—	2	2	—	1	3	—	—	—	—	1	—	—	1	—	—	1	1	5	—	2	7
		Total	17	—	4	21	7	1	3	11	19	—	—	19	10	—	1	11	10	—	1	11	63	1	9	73

Digestive organs	Tuberculous Peritonaeritis	2	—	—	2	1	—	1	2	1	—	—	1	—	—	—	—	—	—	—	4	—	1	5
	Peritonaeritis	3	—	—	4	3	—	—	3	6	—	—	6	4	—	—	5	3	—	—	3	19	—	2	21
	Intestinal tuberculosis	2	—	—	2	3	—	—	3	1	—	—	1	—	—	—	—	1	—	—	1	7	—	—	7
	Gastro-enteric catarrh	—	—	—	—	—	—	—	—	1	—	—	1	2	—	—	2	1	—	—	1	4	—	—	4
	Gastro-brosis	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—	3	—	—	—	—	3	—	—	3
	Gastric catarrh	3	—	—	3	—	—	—	—	—	—	—	—	1	—	2	3	—	—	—	—	4	—	2	6
	Intestinal catarrh	—	—	1	1	2	—	—	2	3	—	—	3	—	—	—	—	—	—	—	—	5	—	1	6
	Hepatitis	2	—	—	2	—	—	—	—	—	—	—	—	1	—	1	2	—	—	—	—	3	—	1	4
	Gastroscirrhus	2	—	1	3	2	—	—	2	1	—	—	1	4	—	1	5	1	—	—	1	10	—	2	12
	Others	5	—	—	5	5	—	—	5	1	—	—	1	2	—	—	2	2	—	—	2	15	—	—	15
	Total	19	—	3	22	16	—	1	17	14	—	—	14	17	—	5	22	8	—	—	8	74	—	9	83
Blood circulation system	Cardipplegia	9	1	—	10	3	—	—	3	3	—	—	3	3	—	—	3	1	—	—	1	19	1	—	20
	Diclidonosis	2	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	2
	Mitralinsufficienz	1	—	—	1	2	—	—	2	1	—	—	1	1	—	—	1	—	—	—	—	5	—	—	5
	Scorbutus	—	—	—	—	—	—	—	—	1	—	—	1	—	—	—	—	—	—	—	—	1	—	—	1
	Others	2	—	—	2	1	—	—	1	—	—	—	—	1	—	1	2	1	—	1	2	5	—	2	7
	Total	14	1	—	15	6	—	—	6	5	—	—	5	5	—	1	6	2	—	1	3	32	1	2	35
Uriogenital diseases	Nephritis	6	—	—	6	1	—	1	2	7	—	—	7	4	—	—	4	—	—	—	—	18	—	1	19
	Typhlitis	1	—	—	1	—	—	—	—	1	—	1	2	—	—	—	—	—	—	—	—	2	—	1	3
	Others	1	—	—	1	—	—	—	—	1	—	—	1	3	—	—	3	1	—	—	1	6	—	—	6
	Total	8	1	—	8	1	—	1	2	9	—	1	10		—	—	7	1	—	—	1	26	—	2	28
Acute epidemics	Dysentery	—	—	1	1	—	—	—	—	—	—	—	—	1	—	—	1	1	—	—	1	2	—	1	3
	Typhoid fever	7	1	—	8	5	—	—	5	3	—	—	3	2	—	—	2	2	—	—	2	19	1	—	20
	Others	2	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	2
	Total	9	1	1	11	5	—	—	5	3	—	—	3	3	—	—	3	3	—	—	3	23	1	1	25
Kakke		6	—	—	6	2	—	—	2	3	—	1	4	2	—	—	2	2	—	1	3	15	—	2	17
Others		17	—	5	22	7	—	2	9	5	—	3	8	8	—	2	10	3	—	1	4	40	—	13	53
Grand total		165	2	15	182	76	2	9	87	94	—	7	101	74	—	11	85	45	2	5	52	454	6	47	507
Sum total		259	2	69	330	106	2	12	120	106	—	7	113	125	—	17	142	49	2	7	58	645	6	112	763
Sum total for 1910		274	3	60	337	108	—	10	118	92	—	8	100	120	—	20	141	37	1	9	47	631	5	107	743

TABLE

MEMBERS OF RELIEF ASSOCIA-

Born in		1838	1830	1840	1841	1842	1843	1844	1845	1846	1847	1848	1849	1850	1851
Age		74	73	72	71	70	69	68	67	66	65	64	63	62	61
Eastern Div. Sup't. Office	A class	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	B class	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	C class	—	1	—	—	—	2	1	1	8	7	9	6	15	23
Total		—	1	—	—	—	2	1	1	8	7	9	6	15	23
Central Div. Sup't. Office	A class	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	B class	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	C class	1	—	—	2	2	—	5	3	4	9	15	14	25	31
Total		1	—	—	2	2	—	5	3	4	9	15	14	25	31
Western Div. Sup't. Office	A class	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	B class	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	C class	—	—	2	1	2	4	4	3	3	13	7	20	19	41
Total		—	—	2	1	2	4	4	3	3	13	7	20	19	41
Kyushu Div. Sup't. Office	A class	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	B class	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	C class	—	1	—	—	1	1	1	1	3	4	4	2	4	12
Total		—	1	—	—	1	1	1	1	3	4	4	2	4	12
Hokkaido Div. Sup't. Office	A class	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	B class	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	C class	1	—	—	1	1	2	4	3	2	4	7	8	6	9
Total		1	—	—	1	1	2	4	3	2	4	7	8	6	9
Yonago Branch Office	A class	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	B class	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	C class	—	—	—	—	—	—	—	—	—	—	1	4	1	—
Total		—	—	—	—	—	—	—	—	—	—	1	4	1	—
Construction Office	A class	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	B class	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	C class	—	—	—	—	—	—	—	1	2	2	3	4	4	6
Total		—	—	—	—	—	—	—	1	2	2	3	4	4	6
Head Office	A class	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	B class	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	C class	—	—	—	—	—	—	—	—	1	—	—	—	1	2
Total		—	—	—	—	—	—	—	—	1	—	—	—	1	2
Grand total	A class	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	B class	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	C class	2	2	2	4	6	9	15	12	23	39	46	58	75	124
Sum total		2	2	2	4	6	9	15	12	23	39	46	58	75	124

NO. L.

TION ACCORDING TO AGE.

1852	1353	1854	1855	1856	1857	1858	1859	1860	1861	1862	1863	1864	1865	1866	1867	1868	1869	1870
60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42
—	—	—	3	40	77	61	77	80	92	123	125	160	188	209	249	214	242	266
—	—	—	—	—	3	—	1	4	1	1	2	8	7	7	9	9	8	14
30	17	31	47	9	2	1	4	1	1	—	1	3	8	6	8	5	6	4
30	17	31	50	49	82	62	82	85	94	124	128	171	203	222	266	228	256	284
—	—	—	3	75	75	84	118	100	110	145	182	195	233	257	326	294	293	365
—	—	—	—	2	1	1	2	2	5	6	10	8	11	9	14	11	11	6
34	33	49	49	16	4	3	2	2	2	1	4	7	5	12	8	12	14	15
34	33	49	52	93	80	88	122	104	117	152	196	210	249	278	348	317	318	386
—	—	—	1	60	69	94	96	85	107	132	162	204	173	236	272	265	275	300
—	—	—	—	—	—	—	—	1	—	1	—	2	2	1	1	3	1	3
44	42	55	58	12	5	9	4	—	3	2	1	2	1	7	11	6	8	16
44	42	55	59	72	74	103	100	86	110	135	163	208	176	244	284	274	284	319
—	—	—	—	31	18	39	21	41	53	69	45	101	98	94	151	111	107	140
—	—	—	—	—	—	—	—	1	1	—	—	—	1	1	2	—	—	1
10	17	25	19	13	8	8	—	6	1	1	1	3	—	3	12	2	4	6
10	17	25	19	44	26	47	21	48	55	70	46	104	99	98	165	113	111	147
—	—	—	2	13	18	25	34	48	54	45	68	81	95	73	105	119	124	118
—	—	—	—	—	—	—	1	—	—	—	—	—	2	—	1	1	2	1
9	20	24	28	16	11	10	8	3	—	3	3	4	8	6	7	10	8	10
9	20	24	30	29	29	35	43	51	54	48	71	85	105	79	113	130	134	129
—	—	—	—	—	4	2	5	1	2	4	8	9	10	9	9	12	13	11
—	—	—	—	—	—	1	—	—	—	2	—	—	1	—	2	—	1	2
3	3	5	5	1	—	1	1	1	—	—	1	1	1	1	1	2	3	2
3	3	5	5	1	4	4	6	2	3	6	9	10	12	10	12	14	17	15
—	—	—	1	7	9	6	15	12	11	11	22	21	28	18	30	33	40	29
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
6	9	6	5	2	7	5	1	—	—	—	1	—	—	1	—	—	1	1
6	9	6	6	9	16	11	16	12	11	11	23	21	28	19	31	33	41	31
—	—	—	—	1	—	1	3	1	1	3	4	8	4	6	1	5	5	2
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—
3	1	4	1	1	3	2	1	1	—	—	1	3	4	4	6	4	6	3
3	1	4	1	2	3	3	4	2	1	3	5	11	8	10	8	9	11	5
—	—	—	10	227	270	312	369	368	430	532	616	779	829	902	1,143	1,053	1,099	1,231
—	—	—	—	2	4	2	4	8	7	10	12	18	24	18	30	24	23	28
139	142	199	212	70	40	39	21	14	8	7	13	23	27	40	53	41	50	57
139	142	199	222	299	314	353	294	390	445	549	641	820	880	960	1,226	1,118	1,172	1,316

TABLE

MEMBERS OF RELIEF ASSOCIATION

Born in		1871	1872	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882	1883	1884
Age		41	40	39	38	37	36	35	34	33	32	31	30	29	28
Eastern Div. Sup't. Office	A class	312	399	438	479	570	591	654	652	754	745	795	871	815	915
	B class	10	16	17	13	12	16	14	13	16	8	1	5	4	3
	C class	12	10	9	16	12	20	28	32	45	42	54	49	60	74
Total		334	425	464	508	594	627	696	697	815	795	850	925	879	992
Central Div. Sup't. Office	A class	420	477	516	530	619	618	693	707	703	740	795	798	784	854
	B class	12	15	5	15	11	10	8	12	11	10	7	4	5	4
	C class	10	30	33	40	37	32	51	51	56	88	79	79	101	116
Total		442	522	554	585	667	660	752	770	770	838	881	881	890	974
Western Div. Sup't. Office	A class	344	421	435	510	551	579	581	577	605	670	661	661	645	707
	B class	4	2	3	4	1	4	3	1	3	2	1	1	1	1
	C class	29	28	37	32	44	54	58	62	71	70	80	92	92	108
Total		377	451	475	546	596	637	642	640	679	742	742	754	738	816
Kyushu Div. Sup't. Office	A class	160	197	204	197	226	270	255	298	274	281	294	371	376	341
	B class	—	3	2	1	—	1	—	—	1	1	—	—	1	—
	C class	6	8	8	13	9	11	16	17	22	15	30	26	28	39
Total		166	208	214	211	235	282	271	315	297	297	324	397	405	380
Hokkaido Div. Sup't. Office	A class	145	186	202	183	221	220	262	239	297	283	304	330	273	316
	B class	2	2	1	12	2	8	4	5	6	5	4	3	1	2
	C class	12	18	10	20	22	22	22	25	23	27	31	23	30	59
Total		159	206	213	215	245	250	288	269	326	315	339	356	304	377
Yonago Branch Office	A class	17	35	19	18	31	35	42	39	47	48	37	45	66	61
	B class	1	1	1	2	2	4	2	1	2	1	—	—	2	2
	C class	2	—	1	3	—	2	5	2	4	4	5	5	7	16
Total		20	36	21	23	33	41	49	42	53	53	42	50	75	79
Construction Offices	A class	29	37	32	55	50	45	48	39	48	43	38	34	51	67
	B class	—	—	2	2	—	—	—	1	1	2	—	2	3	—
	C class	3	1	3	1	—	2	1	3	5	3	—	4	7	9
Total		32	28	37	58	50	47	49	43	54	48	38	40	61	76
Head Office	A class	5	3	6	6	4	4	11	6	4	7	5	12	7	3
	B class	—	—	—	—	—	—	—	—	—	—	—	2	—	—
	C class	4	5	4	6	8	4	5	7	3	6	5	12	9	9
Total		9	8	10	12	12	8	16	13	7	13	10	26	16	12
Total Grand total	A class	1,432	1,755	1,852	1,978	2,272	2,362	2,576	2,557	2,732	2,817	2,929	3,122	3 017	3,264
	B class	29	39	31	49	28	43	31	33	40	29	13	17	17	12
	C class	78	100	105	131	132	147	186	199	229	255	284	290	334	430
Sum total		1,539	1,894	1,988	2,158	2,432	2,552	2,763	2,789	3,001	3,101	3,226	3,429	3,368	3,706

NO. L.

ACCORDING TO AGE.—*Continued.*

1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	Total
27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	
1,033	942	924	829	687	541	729	598	437	343	177	73	—	—	—	—	18,509
1	1	1	2	2	1	—	—	—	—	—	—	—	—	—	—	230
93	128	214	196	135	152	192	195	189	119	94	53	34	5	—	—	2,519
1,127	1,071	1,139	1,027	824	694	921	793	626	462	271	126	34	5	—	—	21,258
939	896	920	797	690	591	750	665	477	261	165	47	3	—	—	—	19,310
6	2	2	—	—	1	—	1	—	—	—	—	—	—	—	—	240
156	197	249	273	237	218	255	260	291	227	111	36	16	1	—	1	3,715
1,101	1,095	1,171	1,070	927	810	1,005	926	768	488	276	83	19	1	—	1	23,265
743	700	756	675	654	608	891	765	804	598	306	56	—	—	—	—	18,034
1	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	49
123	146	196	251	170	160	230	223	274	347	329	127	21	4	—	—	3,863
867	846	954	926	824	768	1,121	988	1,078	945	635	183	21	4	—	—	21,946
430	423	443	444	434	403	564	616	548	390	175	8	—	—	—	—	9,741
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	17
51	48	83	105	73	80	132	152	179	182	165	37	1	—	—	—	1,709
481	471	526	549	507	483	696	768	727	572	340	45	1	—	—	—	11,467
370	325	330	334	272	224	365	316	242	192	90	22	—	—	—	—	7,565
4	2	2	2	1	1	—	—	—	—	—	—	—	—	—	—	77
45	66	74	73	67	60	71	86	86	97	73	25	14	2	1	1	1,422
419	393	406	409	340	285	436	402	328	289	163	47	14	2	1	1	9,064
53	72	90	85	51	44	82	52	31	22	5	1	—	—	—	—	1,227
1	2	—	—	—	1	—	—	—	—	—	—	—	—	—	—	34
6	13	13	21	18	21	22	33	21	22	20	5	4	—	—	—	314
60	87	103	106	69	66	104	85	52	44	25	6	4	—	—	—	1,575
53	52	55	42	27	45	40	37	33	27	27	9	—	—	—	—	1,356
2	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	17
9	10	10	12	6	8	15	9	9	10	10	6	8	1	—	—	232
64	63	65	54	33	53	55	46	42	37	37	15	8	1	—	—	1,605
7	7	6	9	9	8	8	9	8	12	14	8	—	—	—	—	233
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3
10	14	9	17	16	15	16	8	7	11	15	10	12	2	—	—	301
17	21	15	26	25	23	24	17	15	23	29	18	12	2	—	—	537
3,028	3,417	3,524	3,215	2,824	2,464	3,429	3,058	2,580	1,845	959	224	3	—	—	—	75,975
15	8	7	4	3	4	1	1	—	—	—	—	—	—	—	—	687
493	622	848	948	722	714	933	966	1,056	1,015	817	299	110	15	1	2	14,075
4,136	4,047	4,379	4,167	3,549	3,182	4,362	4,025	3,636	2,860	1,776	523	113	15	1	2	90,717

TABLE NO. LI.

OFFICIALS AND EMPLOYEES

Designation \ Item	Year under review		Inc. or dec. (▲) against preceding year	
	Number	Monthly sum of salary or wages	Number	Monthly sum of salary or wages
		yen		*yen*
President	1	—	1	—
Vice-president	1	416.67	—	—
Engineer-in-chief	1	416.67	—	—
Director	6	1,849.99	1	308.33
Engineer (of *chokunin* rank)	12	3,074.99	1	408.34
Total	21	6,658.32	3	716.67
Councillor	58	9,266.67	5	755.49
President's private secretary	1	166.67	—	▲ 16.66
Secretary	58	7,070.84	4	581.93
Assistant secretary	43	4,416.66	8	1,187.50
Engineer (of *sonin* rank)	342	47,733.44	36	5,961.10
Total	502	68,654.28	53	8,469.36
Grand total	523	75,312.60	55	9,186.03
Average salary per capita		144.28		2.72
Clerk — *male*	4,556	197,511.00	231	13,150.59
Clerk — *female*	6	141.00	—	3.00
Assistant engineer	2,156	112,874.00	203	9,660.00
Total — *male*	6,712	310,385.00	434	22,810.59
Total — *female*	6	141.00	—	3.00
Total — total	6,718	310,526.00	434	22.813.59
Average salary per capita		46.22		.41
Assistant clerk — *male*	14,173	253.561.66	596	17,164.87
Assistant clerk — *female*	608	5,453.78	99	894.11
Assistant engineer of lower grade — *male*	11,024	242,382.58	1,443	19,303.29
Assistant engineer of lower grade — *female*	1	20.00	—	▲ 4.00
Total — *male*	25,197	495,944.24	2,039	36,468.16
Total — *female*	609	5,473.78	99	890.11
Total — total	25,806	501,418.02	2,138	37,358.27
Average salary per capita		19.43		▲ .18
Servant	888	10,013.09	▲ 18	204.25
Watchman	5	85.83	—	2.50
Guard	154	2,397.16	1	85.31
Lithographer	32	624.67	16	312.67
Printer	87	1,443.75	▲ 2	▲ 51.25
do., female	10	61.75	3	15.34
do., apprentice	4	27.67	▲ 1	▲ 3.08
Book binder	38	708.43	7	125.43
do., female	14	115.25	▲ 1	▲ 5.75
Labourer, of regular employ	1,937	28,126.74	▲ 103	▲ 871.06
do., female	46	400.50	▲ 110	▲ 834.09
Navy	22	418.17	▲ 11	▲ 201.33
Labourer, testing office	11	175.50	1	24.58
Guard, warehouse	164	3,156.75	9	237.95
Night watchman	50	666.01	2	47.09
Office boy	444	3,035.00	111	76.299
Toolkeeper	42	655.84	4	83.18
Watchman, bridge	98	1,248.33	3	89.49
do., female	27	124.33	▲ 6	▲ 16.41

TABLE NO. LI.

OFFICIALS AND EMPLOYEES.—*Continued.*

Designation / Item	Year under review		Inc. or dec. (△) against preceding year	
	Number	Monthly sum of salary or wages	Number	Monthly sum of salary or wages
		yen		*yen*
Watchman, tunnel	180	2,319.91	20	330.00
do., female	37	155.09	—	4.75
do., level crossing	992	12,034.09	△ 1	732.84
do., female	1,813	8,126.41	51	664.74
Labourer, surveying	247	4,593.00	38	793.75
Foreman trackgang	394	9,239.67	7	416.69
Trackman	11,655	170,389.74	335	9,836.76
Foreman, construction gang	76	2,153.18	2	111.84
Labourer, construction	977	19,239.77	77	1,814.43
Carpenter, of regular employ	486	10,453.09	24	717.76
Watchman, general articles	288	4,585.00	△ 32	△ 431.91
Errand boy	4	44.01	△ 3	△ 27.83
Miner, of regular employ	12	338.76	△ 4	△ 102.90
Signalman	283	4,356.17	10	284.34
Greaser	435	5,329,41	23	134.07
Coal and pumping man	2,175	29,906.26	△ 45	157.01
Cleaner, engine	2,385	24,183.92	△ 61	△ 751.25
Inspector, car	1,204	27,645.42	42	1,551.78
Inspector's assistant, car	382	5,678.49	35	637.24
Engineman, feeder service	93	1,768.91	15	356.99
Fireman, feeder service	72	1,183.41	—	1.66
Lamp tender	433	5,676.42	△ 16	23.76
Cleaner	639	10,202.26	410	5,016.76
do., female	221	1,754.92	204	1,631.09
Engineman, shop	16	405.75	8	177.00
Fireman, shop	71	1,414.68	△ 5	△ 80.66
Toolkeeper, shop	136	2,402.33	5	152.00
Hydraulic crane operator's assistant	7	129.58	2	46.58
Fireman, hydraulic crane	2	32.83	△ 1	△ 20.09
do., steam crane	4	88.25	—	5.48
Coaling machine operator's assis't	8	134.75	—	7.33
Fireman, coaling machine	8	119.83	—	7.25
Labourer of regular employ, coaling machine	29	347.33	10	107 91
Fireman, apprentice	537	6,143.26	53	559.01
Coppersmith	223	5,249.42	1	16.75
Mechanic, erecting shop	2,128	49,702.66	△ 45	662.74
Smith	1,321	27,937,51	114	2,649.43
Mechanic, boiler shop	1,829	40,437.67	108	3,255.42
do., lathe shop	996	22,109.58	73	1,951.49
do., casting shop	517	11,970.24	23	776.32
Sewer	371	6,669.92	256	4,243.00
do., female	150	1,153.67	148	1,137.25
Mechanic, pattern shop	62	1,703.59	△ 7	△ 178.91
do., paint shop	837	17,616.00	41	1,235.49
Woodworker	3,387	78,055.41	558	13,591.83

TABLE NO. LI.

OFFICIALS AND EMPLOYEES—*Continued.*

Designation / Item	Year under review		Inc. or dec. (△) against preceding year	
	Number	Monthly sum of salary or wages	Number	Monthly sum of salary or wages
		yen		*yen*
Turner	231	5,037.91	13	228.08
Mechanic, finishing shop	927	20,161.99	104	2,295.74
Workman, gas apparatus	17	273.75	2	39.00
Mechanic's helper	4,045	47,444.83	555	7,034.42
do., female	184	1,389.75	116	882.41
Mechanic, apprentice	355	3,245.17	10	284.67
Fireman, heating apparatus	2	39.00	—	3.00
Foreman, porters	268	5,144.58	24	638.32
Policeman	824	11,826.00	57	913.75
Pointman	3,752	55,778.41	487	924.42
Porter, goods	3,044	45,411.76	309	5,390.35
Coupler hand	1,515	17,973.82	399	3,704.41
Porter	9,041	95,310.76	513	7,011.27
do., female	31	258.50	12	84.24
Brakeman	1,096	13,853.34	38	592.76
Train boy	255	2,221.58	27	185.41
Goods porter, train	248	3,804.83	51	781.66
Porter, train service	31	318.17	6	46.59
Collection-and-delivery man, goods	164	2,518.92	△ 8	△ 1,010.99
Foreman, electric wiring gang	28	708.17	3	89.42
Labourer, electric wiring	533	8,939.20	97	1,379.51
Mechanic, electric machine	236	4,776.58	56	1,042.58
Engineman, generating station	32	800.16	3	78.99
do., apprentice	9	128.08	7	90.50
Fireman, generating station	47	936.84	7	163.01
do., apprentice	3	36.25	△ 11	△ 140.17
Tender, electric Machine	26	483.58	7	137.17
do., apprentice	12	115.58	6	68.16
Inspector, electric car	13	241.83	7	135.66
Inspector, electric lamps	80	1,480.99	41	778.33
do., apprentice	57	690.43	38	438.60
Workman, electric plants	46	919.42	10	173.84
Cook, foreign meal	12	307.25	1	34.08
Butler	2	27.42	—	△ .83
Waiter, hotel	14	143.25	△ 1	△ 18.25
Cook's helper	6	89.42	2	31.59
do., female	1	8.25	—	—
Steersman	59	979.42	7	107.09
Greaser, steamer service	57	964.92	1	19.84
Sailor	114	1,375.26	9	107.17
Fireman, steamer service	151	1,740.41	21	208.57
Shipwright	12	260.67	2	52.09
Waiter, steamer service	140	1,672.34	22	322.17
Coolie, steamer service	24	313.91	4	53.57
Cook, Japanese meal	18	315.42	2	58.67
Ship's hand	114	2,215.92	36	696.93
Servant, etc.,	—	—	▲ 202	△ 5,130.76
do., female	—	—	△ 5	△ 37.08
Total — *male*	67,837	1,037,801.96	4,751	88,658.27
Total — *female*	2,534	13,548.42	412	3,526.49
Total — total	70,371	1,051,350.38	5,163	92,184.76
Average salary per capita		14.94		.26
Grand total — *male*	100,269	1,919,443.80	7,280	157,123.05
Grand total — *female*	3,149	19,163.20	511	4,419.60
Grand total — total	103,148	1,938,607.00	7,791	161,542.65
Average salary per capita	—	18.75	—	.17

PRIVATE AND LIGHT RAILWAYS IN JAPAN PROPER

(ALSO TRAMWAYS)

PRIVTE AND LIGHT RAILWAYS.

GENERAL RESUME.

During the year under review the data concerning the private and light railways were as follows:—

Four private railways under provisional charters with an aggregate mileage of 48 m. 61 ch. and a total as light railways, while a line extending 0 m. 44 ch. capital amounting to 33,000,000 yen were designated discontinued its service with an accompanying reduction of 1,500,000 yen in capital. Consequently at the end of the year the private railways under provisional charters numbered three with an aggregate mileage of 114 m. and a total capital of 8,400,000 yen.

85 railways, of which one was under prefectural management and two privately owned, with a total mileage of 1,111 m. 75 ch. and an aggregate capital of 43,974,275 yen, were granted charters as light railways, and ten private railways or tramways with an aggregate mileage of 179 m. 54 ch. and a total capital amounting to 12,250,810 yen were converted into light railways. Besides these movements which took place in the list of light railways, there were noticed an increase of 1,130,000 yen in the amount of capital and a diminuition of one mile in the length of lines. Consequently at the end of the year the light railways numbered 133 with an aggregate mileage of 2,129 m. 69 ch. and a total capital of 97,667,085 yen.

Two private railways under definite charters, with an aggregate mileage of 61 m. 45 ch. and a total capital of 4,000,000 yen, were converted into light railways, while in the rest of these railways there was noticed an increase of 36 m. in open mileage and 1,460,000 yen in the amount of capital, besides 75,000 yen transferred to the capital accounts of the light railways additionally managed by these private railways. Consequently at the end of the year the private railways under definite charters numbered 9, of which the aggregate mileage was 322 m. 34 ch. and the total amount of the capital 33,875,000 yen.

Private and light railways stated above numbers 142 with an aggregate mileage of 2,452 miles 34 ch. and a total capital of 131,542,085 yen of which 32 with a total length of 604 miles 64 ch. were created during the year. Compared with the preceding year number increased by 83 mileage by 1,197 m. 19 ch. and capital by 52,491,085 yen while the railways newly created in the year under review outnumbered those in the preceding year by 9 with 94 m. 28 ch.

The rolling stock owned by the private and light railways comprised 162 locomotives, 765 carriages and 1,797 wagons. Compared with the preceding year locomotives increased by 27, carriages by 33 and wagons by 180.

The total locomotive mileage during the year was 3,657,271 miles with the consumption of coal amounting to 571,000 tons valued at 293,208 yen, and of oil reaching 512 *koku* valued at 10,931 yen. Compared with the preceding year locomotive mileage increased by 237,338 miles or 6.9 per cent., coal by 4,612 tons valued at 7,309 yen or 2.6 per cent., and oil by 51 *koku* or 11.1 per cent. valued at 1,005 yen or 1.1 per cent.

Total train mileage was 3,322,229 miles, car mileage 3,742 miles, electric car mileage 3,742,349 miles, steam autocar mileage 202,548 miles and the wagon mileage 11,949,277 miles. Compared with the preceding year there was an increase of 192,837 miles or 6.2 per cent. in train mileage, 1,950,591 miles, or 97.8 per cent. in the combined mileage of electric cars and steam autocars, and 1,803,291 miles or 17.7 per cent. in wagon mileage, while car mileage decreased by 50,864 miles or 3 per cent.

Passengers carried amounted to 28,827,996, aggregate passenger mileage to 209,422,299 miles, fares to 326,981 yen, luggage conveyed to 9,750 tons, charges realized to 61,736 yen, goods hauled to 983,664 tons, aggregate freight mileage to 40,494,024 miles, freight receipts to 1,000,778 yen and terminal charges to 299,331 yen. Compared with the preceding year the number of passengers increased by 2,918,742 yen or 11.3 per cent., passenger mileage by 17,986,506 miles or 12 4 per cent., fares by 300,596 yen or 10.2 per cent., luggage conveyed by 1,074 tons or 12.4 per cent., charges realized by 7,757 yen or 14.4 per cent. goods by 669,297 miles or 28.9 per cent., goods mileage by 9,509,661 miles or 30.7 per cent., goods receipts by 182,850 yen or 22.4 per cent., and terminal charges by 50,955 yen or 20.5 per cent.

The traffic receipts totalled 4,921,973 yen and the traffic expenses 2,401,983 yen leaving balance of 2,519,990 yen as profit. Compared with the preceding year the traffic receipts increased by 448,656 yen or 10 per cent., traffic expenses by 8,667 yen or 12.1 per cent. and balance of profit by 189,989 yen or 8.2 per cent.

The railway staff comprised 5,375 officials and employees with aggregate monthly salary of 82,602 yen showing an increase of 709 in the number of persons, and 15,187 yen in the monthly outlay as compared with the corresponding figures of the preceding year.

1.—PROVISIONAL CHARTERS

During the year under review no cases of either the grant of provisional charters or the invalidation of charters occurred, and consequently no change was witnessed in the list of private railways except those designated as light railways which are shown below:—

Name of Co.	Line			Capital	When granted provisional charters	When desginated as light railways
	Section	Mileage	Gauge			
		m.c.	*ft. in.*	*yen*		
Bino	Ichinomiya-Otome	13.00	3.6	600,000	May 27, 1899.	April 5, 1911.
Aichi	Chigusa-Inuyama	15.00	3.6	1,200,000	Feb. 8, 1908.	June 12, „
Kokura	Tomino-Haramachi	3.15	3.6	1,000,000	Dec. 28, „	Sept. 9, „
Nagaoka	Nagaoka-Teradomari... ...	16.66	2.6	500,000	May 12, 1910.	Apr;l 24. „
Total	... ...	48.61	—	3,300,000	—	—

2.—DEFINITE CHARTERS.

A. GRANTED.

During the year under review no cases of either the grant of definite charters or the invalidation of charters occurred and consequently no change was witnessed in the list of private railways except those designated as light railways which are shown below:—

Name of Co.	Line			Capital	When granted definite charters	When designated as light railways
	Section	Mileage	Gauge			
		m. c.	*ft.in.*	*yen*		
Shinsan	Arakawa-Asuke	34.74	3.6	1,300,000	Dec. 25, 1906.	Dec. 5, 1911.
Kokura	Adachi—Kumata	26.51	3.6	3,500,000	June 14, 1907.	Sept. 9, „
Total	.. ..	61.45	—	4,800,000	—	—

Light railways granted their charters or converted from private railways or tramways during the year under review are as follows:—

Name of Co.	Line			Capital	When granted or converted (△)
	Section	Mileage	Gauge		
		m.c.	*ft.in*	*yen*	
Chuetsu	Fushiki-Himi	6.00	3.6	200,000	April 1, 1911
Chugoku	Sarayama-Emi	16.70	2.6	800,000	August 11, „
Sano	Inubushi-Tatebayashi	6.35	3.6	200,000	March 4, 1912
Bisai	Shingu-Kitagata	5.28	3.6	220,000	„ 18, „
	Oku-Okoshi	1.57			
	Total	7.05			
Chiba (Prefectural management)	Kisaratsu-Kururi	13.56	2.6	316,425	July 18, 1911
Tosan Electric	Branch line (Gobancho-Tamamomachi, Takamatsu)	.72	4.8½	580,000	Nov. 1, „
	Shido-Matsuo	8.47			
	Total	9.39			
Hatsuse	Hatsuse-Sakurai	3.34	3.6	250,000	△Feb. 10, 1912
	Aratatsubo-Nanata	.03			△ „ „ „
	Spur line, Sakurai Station	.05			March 13, „
	Total	3.42			
Bino	Ichinomiya-Otome	13.00	3.6	600,000	△April 5, 1911
Shinano	Matsumoto-Omachi	19.40	3.6	600,000	„ „ „
Neshio	Nishi-Okazaki	8.25	2.6	300,000	△ „ 8, „
Ihara-Takaya	Ihara-Takaya	2.15	2.6	50,000	„ 10, „
Miyazaki	Ota-Uchimi	13.27	3.6	500,000	„ 18, „
Tsukuba	Tsuchiura-Shimodate	21.15	2.6	700,000	„ 20, „
Nagaoka	Nagaoka-Teradomari	16.66	2.6	500,000	△ „ 24, „
Jobu	Fujiyabuchi-Kanezaki	1.70	3.6	—	„ „ „
Kisei	Oka-Nigo	35.48	3.6	1,500,000	„ 25, „
Kurate	Kiyase-Kazuki	1.49	2.6	100,000	„ 27, „
Hichiku	Ohara-Arao	9.40	3.6	500,000	May 5, „
Matsuzaka	Matuzaka-Oishi	13.46	2.6	400,000	June 6, „
	Yagawa-Okuchi	1.61			„ 17, „
	Total	15.27			
Itsukushima	Onishi-Yayama	1.25	3.6	250,000	„ 6, „
Tawaramoto	Tawaramoto-Oji	6.64	3.6	200,000	„ 7, „
Aichi	Chigusa-Inuyama	15.47	3.6	800,000	△ „ 12, „
Sasayama	Sasayama-Osawa	2.40	3.6	80,000	„ „ „
Himeji	Himeji-Higashihashizeki	8.64	3.6	400,000	„ 15, „
Yamazaki	Higashihashizaki-Sugazawa	10.25	4.8½	500,000	„ „ „
Fukushima	Shikada-Fukushima	3.75	2.6	160,000	„ „ „
Fuji-Minobu	Omiya-Kofu	49.24	3.6	3,500,000	„ 23, „
Monoura	Yamaguchi-Monoura	3.73	3.6	500,000	„ 26, „
Spa Excursion	Beppu-Okoshi	9.10	3.6	700,000	„ „ „
Oyama	Hiratsuka-Isehara	5.56	2.6	100,000	„ 28, „
Seiyo	Gunchu-Yahatahama	37.24	3.6	2,000,000	„ „ „
	Yahatahama-Sugawa	1.56			
	Total	39.00			

Name of Co.	Line			Capital	When granted or converted (△)
	Section	Mileage	Gauge		
		m.c.	*ft. in*	*yen*	
Ube	Nishishinkawa-Ube	4.00	2.6	150,000	June 28, 1911
Hiroshima-Kure Electric	Washo-Aga	2.18	3.6	600,000	„ „ „
Kikuchi	Waifu-Otsu	11.00	3.6	500,000	July 1, „
Iwate	Hanamaki-Kamigo	40.39	2.6	1,000,000	„ 5, „
Ota	Ota-Iwashiku	9.07			„ 18, „
	Sasagake-Aioi	1.32	2.0	74,000	Feb. 1, 1912
	Total	10.39			
Kimura (Under private management)	Shirooka-Shimonakashima	1.44	2.6	40,000	July 18, 1911
Hekikai	Chiryu-Ohama	11.38	2.6	350,000	„ „ „
Koya Electric	Hashimoto-Koya	13.10	3.6	2,000,000	„ „ „
Tateyama	Tatsuno-Maezawashin	9.72	2.6	320,000	„ „ „
Shinminato	Fukushima-Shinminato	15.48	3.6	550,000	„ „ „
Jomei	Ueno-Nabari	14.02	2.6	300,000	„ „ „
Hijiu	Takee-Ajin	11.00	2.6	300,000	„ „ „
Yabakei	Toyota-Tsutami	13.75	3.6	650,000	„ 28, „
Kagoshima Electric	Kagoshima-Taniyama	4.00	4.8½	1,000,000	August 3, „
Chosyu	Beppu-Shomyoshi	46.00	3.6	1,500,000	„ 4, „
Chikyo	Chiryu-Tomoe	9.30	2.6	300,000	„ 5, „
Chubi	Chaya-Sosha	10.13	3.6	350,000	„ 12, „
Okawa	Okawa-Kurume	12.40	3.6	250,000	△ „ 17, „
Ichihata	Imaichi-Kozakai	13.05	2.6	400,000	„ 21, „
Ryobi	Fukuyama-Takaya	9.56			
	Kawaminami-Fuchu	10.40	2.6	450,000	„ „ „
	Total	20.16			
Sunen	Yaizu-Nakaizumi	45.00	2.6	1,200,000	„ 22, „
Senhoku	Kogota-Ishinomaki	17.40			
	Toyoma-Tsukidate	21.20	2.6	1,000,000	„ 23, „
	Total	38.60			
Toso	Fujieda-Kawasaki	11.60	2.6	300,000	„ 28, „
Tamashima	Tsumasaki-Tamashima	1.56	3.6	90,000	„ 29, „
Kinfuku	Kanazawa-Fukumitsu	12.60	3.6	500,000	Sep. 9, „
Kokura	Adachi-Kumada	26.74			△ „ „ „
	Tomino-Haramachi	3.15			△ „ „ „
	Magarigane-Soeda	8.00	3.6	5,150,000	Oct. 13, „
	Total	38.09			
Takeoka	Takeu-Sadatomo	4.61	3.6	100,000	Sep. 28, „
Konan	Takagai-Yokaichi	5.32	2.6	150,000	„ 30, „
Ujima	Hachiya-Harai	9·00	2.6	200,000	„ „ „
Nangu	Furue-Nakana	6.20	2.6	180,000	Oct. 7, „
Senju	Senju-Kawaguchi	6.40	3.6	300,000	„ 18, „
Beppu	Kakogawa-Beppu	3.26	3.6	140,000	„ „ „
Musashino	Sugamo-Hanno	24.70	3.6	1,000,000	„ „ „
Seibu	Hachioji-Omiya	27.00	3.6	1,500,000	„ 30, „
Joso	Shimodate-Torite	32.48	2.6	800,000	Nov. 1, „

Name of Co.	Line			Capital	When granted or converted (△)
	Section	Mileage	Gauge		
		m c.	*ft.in.*	*yen*	
Kamaishi coal-mine line (private management)	Suzuko—Ohashi	9.71	2.6	250,000	Nov. 2, 1911
Nogami	Higata—Higashinogami	5.40	3.6	200,000	„ 10, „
Yagake	Kitagawa—Yagake	3.20	2.6	80,000	„ 28, „
Soshi	Sosha—Yagake	11.20	2.6	330,000	„ 28, „
Hambi branch line	Makuyama—Shingu	15.00	3.6	1,000,000	„ 28, „
Satte	Kuki—Toyooka	6.12	3.6	200,000	Dec. 1, „
Hagi	Shomyoshi—Tamaeura	14.00	3.6	700,000	„ 11, „
Shinsan	Shinkawa—Asuke	34.74	3.6	1,300,000	△ „ 5, „
Awa Electric	Dekijima—Kamo	1.50	$4.8\frac{1}{2}$	400,000	„ 23, „
	Ojin—Muya	7.36			
	Total	9.06			
Tenri	Horyuji—Tamaichi	5.40	3.6	250,000	Jan. 4, 1912
Kumamoto	Kasuga—Takikawa	8.48	3.6	500,000	„ 10, „
Kokusei	Kuwana—Akaki	12.40	2.6	250,000	„ 16, „
Higashiosaka	Minamino—Kori	3.60	3.6	700,000	„ 27, „
	Ichimura—Nakasuji	8.76			
	Total	12.56			
Anno	Shinmachi—Akira	9.60	2.6	230,000	Feb. 3, „
	Shinmachi—Takamiya	6.20			
	Total	16.00			
Miyazaki (prefectural management)	Miyazaki—Tsumamachi	18.00	3.6	644,810	„ 10, „
	Obi—Aburatsu	4.00	2.6	189,040	
	Total	22.00			
Mino Electric	Gifu—Kasamatsu	2.78	3.6	320,000	„ 23, „
Fuji	Kashima—Omiya	6.36	3.6	300,000	△ „ 28, „
Arita	Yuasa—Hasegawa	7.00	3.6	400,000	Mar. 9, „
Chuen	Takao—Yokosuka	7.00	2.6	100,000	„ 9, „
Hamamatsu	Hamamatsu—Kiga	11.60	2.6	350,000	„ 5, „
	Kanazashi—Okuyama	5.00			
	Iinoya—Idaira	2.65			
	Total	19.45			
Nagoya Electric	Nishibiwajima—Tsushima	8.54	3.6	1,951,810	△ „ 12 „
	Nagoya-oshikirimachi—Ichinomiya	12.02			△ „ 29, „
	Iwakura—Inuyama	9.59			
	Total	30.35			
Matsushima	Shiogama—Matsushima	8.00	2.6	200,000	„ 18, „
Toba	Toba—Ugata	16.40	2.6	300,000	„ 20, „
Chuno	Gifu—Kanayama	43.45	2.6	1,500,000	„ 25, „
	Ota—Yoshida	5.50			
	Total	49.19			
Kariwa	Yasuda—Okanomachi	8.00	2.6	250,000	„ 27, „
Kamo	Seijo—Aga	19.15	2.6	800,000	„ 28, „
Takada	Chosyu—Takada	3.40	2.6	110,000	„ 30, „
Nagara	Nagara—Takatomi	3.60	3.6	120,000	„ 30, „
Kihoku	Hayata—Kitagata	4.15	3.6	250,000	„ 30, „
Grand total		1,291.49	—	56,226,085	—

B. INVALIDATED.

Light railways which had their charters invalidated during the year under review are as follows:—

Name of Co.	Line			Capital	When granted or converted (△)
	Section	Mileage	Gauge		
		m.c.	*ft.in*	*yen*	
Bino	Ichinomiya-Otome	13.00	3.6	600,000	△ April 5, 1911
Ihara-Takaya	Ihara-Takaya	2.15	2.6	50,000	„ 10, „
Total	... ...	15.15	—	650,000	—

3.—LINES OPENED FOR TRAFFIC.

	Name of Co.	Section	Mileage	When opened
Private	Yokohama	Higashikanagawa (junction)-Umikanagawa.	.65	December 10, 1911
Light	Chugoku	Inari-Inariyama	*m.c.* 1.40	May 1, „
	Chiba (Prefectural management)	Kashiwa-Nodamachi	9.10	„ 9, „
		Narita-Sanrizuka	6.22	July 5, „
		Sanrizuka-Tako	9.13	October 5, „
		Total	24.45	
	Shimabara	Motoisahaya-Ainomura	6.59	June 20, „
		Isahaya-Motoisahaya	.75	August 21, „
		Total	7.54	
	Jobu	Hagure-Motoisahaya ... ... / Motonokami-Chichibu...	6.69	September 14, „
	Uonuma	Shinraikoji-Ojiya	8.06	„ „ „
	Nishio	Nisho-Okazakishin	8.25	October 30, „
	Kamaishi coal-mine line ...	Suzuko-Ohashi	9.71	November 3, „
	Tosan electric	Imahashi-Shido	7.52	„ 18, „
	Hatsuse	Hatsuse-Sakurai	3.34	February 10, 1912
	Aichi electric	Tenma-Onomachi...	14.38	„ 18, „
	Nagoya electric	Oshikirimachi-Biwajimabashi	1.09	March 29, „
Grand total	... ...		93.43	—
Sum total	... ...		94.28	—

Note:—In the above table (×) indicates the railway companies created during the year under review, the rest being the extenstions of the existing railways.

4.—PRIVATE AND LIGHT RAILWAYS AT THE END OF THE YEAR.

A. PRIVATE RAILWAYS UNDER DEFINITE CHARTERS.

Name of Co.	Line			Line not yet opened				Gauge	Capital		Approved date of establishment of company	When opened
	Section	Traffic mileage	Aggregate mileage	Section	Mileage	When granted charters	Estimated date of completion		Nominal	Paid up		
		m.c.	*m.c.*		*m.c.*			*ft. in.*	*yen*	*yen*		
Narita	Sakura-Sawara	24.55	53.01	—	—	—	—	3.6	2,425,000	2,425,000	Nov. 1895	Jan. 19, 1897
	Narita-Abiko	20.31										
	Total	45.06										
Chuetsu	Fushiki-Johana	23.06	27.17	Fushiki-Himi (Light Railway Line)	6.00	Apr. 4, 1911	Jan. 11, 1913	3.6	1,050,000 200,000	990,000 140,000	Nov. 9, 1895	May 4, 1897
Nankai	Namba-Wakayamashi	40.03	81.27	—	—	—	—	3.6	10,000,000	7,086,000	Mar. 3, 1896	Oct. 1, 1897
	Wakayamashi-Junction with State line	.55										
	Tengajaya-Tennoji	1.37										
	Total	42.15										
Chugoku	Okayama-Tsuyama	35.20	57.57	—	—	—	—	3.6	4,300,000	4,300,000	Apr. 30, 1896	Dec. 21, 1898
	Okayama-Tadai	13.40										
	Inari-Inariyama	1.40	1.73	Sarayama-Emi (Light Railway Line)	16.70	Aug. 11, 1911	—	2.6	75,000 800,000	75,000	—	—
	Total	48.60 1.40										
Tobu	Asakusa-Isezaki	70.22	89.49	—	—	—	—	3.6	5,300,000	3,180,000	Sep. 3, 1896	Aug. 27, 1899
	Kameido-Hikifune	2.11										
	Total	72.33										
Hakatawan	Saitozaki-Umi	15.30	24.28	—	—	—	—	3.6	2,075,000	1,452,500	Jan. 13, 1900	Jan. 1, 1904
	Sakado-Shime	1.04										
	Total	16.34										
Yokohama	Higashikanazawa-Hachioji	26.35	37.76	—	—	—	—	3.6	3,500,000	3,020,000	May 23, 1905	Sep. 23, 1908
	Higashikanagawa-Umikanagawa	.65										
	Total	27.20										
Asio	Kiryu-Omamamachi	3.53 .65	4.56	Omamamachi-Ashio	24.56	Jan. 31, 1910	Mar. 3, 1915	3.6	2,000,000	1,998,325	Jan. 31, 1910	Apr. 15, 1911
Musashi Electric	—	—	—	Shibuya-Hiranuma Chofu-Kamata Total	15.16 3.66 19.02	Jan. 9, 1911	Jan. 10, 1914	4.8½	3,500,000	699,450	Jan. 9, 1911	—
Grand total	281.12		377.64	—	66.48	—	—	—	34,950,000	25,151,275	—	—

B. PRIVATE RAILWAYS UNDER PROVISIONAL CHARTERS.

Name of Co.	Line opened			Line not yet opened	Mileage	When granted chraters	Estimated date or period of completion	Gauge	Capital		Approved date of establishment	When opened
	Section	Traffic mileage	Aggregate mileage	Section					Nominal	Paid up		
		m.c.	*m.c.*		*m.c.*			*ft. in.*	*yen*	*yen*		
Tojo	—	—	—	Otsuka-Shibukawa	74.26	Oct. 6,1908	Nov. 15,1910	3.6	4,500,000	—	—	—
Sokai	—	—	—	Yokohama-Zushi	32.78	Jan. 9,1910	Twelve months	3.6	1,800,000	—	—	—
Musashi Electric	—	—	—	Hiranuma-Horaimachi	2.24	May. 16,1910	Aug. 15,1921	4.8	600,000	—	—	—
				Shibuya-Shinjiku	5.15	Mar. 10,1910	Twelve months	4.8	1,500,000	—	—	—
				Total	7.39	-		—	2,100,000	--	—	—
Grand total	—	—	—		114.63	—	—	—	8,400,000	—	—	—

C. LIGHT RAILWAYS.

Name of Co.	Line opened			Line not yet opened				Gauge	Capital		Approved date of establishment	When opened
	Section	Traffic mileage	Aggregate mileage	Section	Mileage	When granted charters	Estimated date of completion		Nominal	Paid up		
		m.c.	*m.c.*		*mileage*			*ft.in.*	*yen*	*yen*		
Iyo	Takahama-Yokogawara 1.411 Tachibana-Morimatsu 2.63 Komachi-Ichibancho 3.28 Matsuyama-Gunchu 6.56 Total 26.78		30.03	—	—	—	—	2.6 2.6 3.6 2.6	1,200,000	840,000	Dec. 28, 1886	Oct. 28, 1888
Omi	Tachikawa-Hinatawada	13.00	11.71	—	—	—	—	3.6	750,000	550,000	June 21, 1892	Nov. 19, 1894
Kawagoe	Kokubunji-Kawagoe	18.36	21.70	—	—	—	—	3.6	500,000	402,000	,,	Dec. 21, 1894
Sano	Kuzu-Koshina 9.56 Sano Junction-Sano .18 Total 9.74		13.76	Inufushi-Tatebayashi	6.35	Nov. 4, 1912	—	3.6	150,000 200,000	150,000	Apr. 13, 1893	Mar. 20, 1894
Kotsuke	Takasaki-Shimonida	21.00	22.37	—	—	—	—	2.6	600,000	536,855	Dec. 27, 1895	May 10, 1897
Toyokawa	Yoshida-Nagashino 17.30 Funamachi-Junction-Funamachi .31 Total 17.61		22.18	—	—	—	—	3.6	1,300,000	1,300,000	Jan. 24, 1896	July 15, 1897
Omi	Hikone-Kibugawa	26.01	30.38	—	—	—	—	3.6	1,100,000	1,099,955	June 16, 1896	June 11, 1898
Bisai	Yatomi-Shinichinomiya	15.46	20.03	Shinichinomiya-Kitakata 5.28 Oku-Okoshi 1.57 Total 7.05		Mar. 18, 1912	—	3.6	600,000 220,000	600,000	Oct. 21, 1899	Apr. 3, 1998

Name of Co.	Line			Line not yet opened				Gauge	Capital		Approved date of establishment of Co.	When opened
	Section	Traffic mileage	Aggregate mileage	Section	Mileage	When granted charters	Estimated date of completion		Nominal	Paid up		
		m.c.	*m.c.*		*m.c.*			*ft.in.*	*yen*	*yen*		
Jobu	Kumagaya—Chichibu	21.04	25.77	Honnokami Junction—Omiya	7.64	Feb. 16, 1911	July 18, 1913	3.6	1,000,000	700,000	Nov. 12, 1898	Oct. 7, 1901
Ryugasaki	Ryugasaki—Sanuki	2.64	3.04	—	—	—	—	2.6	91,000	71,432	Apr. 5, 1899	Aug. 14, 1900
Kanan	Kashiwabara—Nagano	10.22	12.13	—	—	—	—	3.6	350,000	325,000	„ 7, „	May 11, 1899
Mito	Mito—Ota	12.11	13.67	—	—	—	—	3.6	230,000	230,000	Aug. 20, 1900	Oct. 21, 1901
Izu	Mishima—Ohito	10.51	12.32	—	—	—	—	3.6	600,000	420,000	July 10, 1907	July 19, 1907
Koyatozan	Shiomibashi—Nagano	17.31	22.71	Nagano—Hashimoto	10.24	Feb. 16, 1911	Feb. 13, 1914	3.6	2,000,000	830,000	Nov. 7, „	Nov. 16, „
Koaka	Koaka—Odate	14.03										
	Shigenai—Futatsuya	2.21	22.70	—	—	—	—	2.6	1,000,000	100,000	Apr. 14, 1909	May 7, 1909
	Total	16.24										
Shimabara	Isahaya—Ainomura	7.54	8.65	Ainomura—Minatomachi	17.43	„ „ „	Sep. 14, 1913	3.6	800,000	400,000	Mar. 19, „	June 20, 1911
Chiba (prefectaral management	Kashiwa—Noda	9.10						3.6				
	Narita—Tako	14.49						2.0				
	Sanrizuka goods branch	.26	29.41	Kisaraji-Kururi	13.56	July 18, „	—	2.0	726,425	—	Aug. 31, 1910	May 9, „
	Tako — Kuriyamagawa loading peier	.40						2.6				
	Total	24.45						2.0				
Aichi Electric	Tenma—Onomachi	14.38	—	Atsuta—Demma	.51							
				Onomachi—Tokoname	3.03	Sep. 23, 1910	Apr. 21, 1914	3.6	1,000,000	600,000	Sep. 23, „	Feb. 18, 1912
				Total	3.54							
Uonuma	Shinrakoiji—Ojiya	8.06	8.61	—	—	—	—	2.6	200,000	195,450	Oct. 4, „	Sep. 14, 1911
Tosan Electric	Imabashi—shido	7.52	8.27	Nishihamacho, Takamatsu—Imabashi	2.46	Feb. 15, 1911	Apr. 21, 1913	4.8½	1,000,000	574,920	Feb. 15, 1911	Nov. 18, „
		—	—	Gobancho, Takamatsu—Tamamomachi	.72	Nov. 1, „	—	4 8½	580,000	—	—	—
		—	—	Shido—Matsuo	8.47							
		—	—	Total	12.05	—	—					
Nishio	Nishio—Okazaki	8.25	9.03	—	—	—	—	2.6	300,000	150,000	Apr. 8, 1911	Oct. 30, „
Tanaka Chobei	Suzuko—Ohashi	9.71	10.41	—	—	—	—	2.6	250,000	—	Nov. 2, „	Nov. 3, „
Hatsushe	Hatsuse—Sakurai	3.34	3.65	Aratatsubo—Nanata	.03	Feb. 10, 1912	May 31, 1912					—
				Spur line, Sakurai station	.05	Mar. 13, „		3.6	250,000	152,500	Feb. 10, 1912	Feb. 10, 1912
				Total	.08	—						
Nagoya Electic	Oshikirimachi, Nagoya—Biwajima	1.09	—	Nishibiwajima—Tsushima	8.54	„ 12, „	—	3.6	850,000	—	—	—
				Biwajimabashi—Ichinomiya	10.73	„ 29, „	—	3.6	1,951,810	—	Mar. 29, „	May 29, „
				Iwakura—Inuyama	9.59							
				Total	29.25	—	—		—	—	—	—

Minato...	—	—	—	Taketa—Minato	5.11	Feb. 16, 1911	Feb. 22, 1913	3.6	250,000	58,408	Feb. 16, 1911	—
Yoshino Light ...	—	—	—	Yoshinoguchi—Kitamuta	7.20	Sep. 5, 1910	Sep. 2, 1911	3.6	300,000	300,000	Sep. 5, 1910	—
Tomoe Light ...	—	—	—	Tomoe—Fukuyama	7.71	„ „ „	„ 12, „	2.6	200,000	90,000	„ „ „	—
Kata Light... ...	—	—	—	Kitajima—Kata	5.52	Oct. „ „	Oct. 9, „	3.6	200,000	120,000	Oct. „ „	—
Kyoto Electric Lighting	—	—	—	Fukui—Nakarai	22.14	„ 6, „	„ 3, „	3.6	535,000	—	„ 6, „	—
Ise	—	—	—	Tsu—Yokkaichi	21.64	„ 20, „	Feb. 28, 1912	3.6	500,000	50,000	„ 20, „	—
Awanokuni Kyodo Kisen	—	—	—	Tokushima—Komatsushima ...	6.76	„ 22, „	Oct. 20, 1911	3.6	650,000	—	„ 22, „	—
Hachihei Electric Light	—	—	—	Hiratsuka—Hachioji	24.50	„ 24, „	„ 24, 1912	4.8½	3,000,000	—	„ 24, „	—
Chuo	—	—	—	Kawaguchi—Iwatsuki	12.40	Nov. 5, „	Feb. 4, „	3.6	600,000	60,000	Nov. 5, „	—
Shimotsui	—	—	—	Shimotsui—Chaya...	13.55	„ 9, „	Nov. 8, 1911	2.6	300 000	75 000	„ 9, „	—
Tama	—	—	—	Sakai—Koremasa	5.11	„ 15, „	May 17, „	3.6	350,000	52,945	„ 15, „	—
Yokkaichi	—	—	—	Yokkaichi—Komono	10.15	„ 17, „	Nov. 12, „	2.6	200,000	110,000	„ 17, „	—
Ihara — Kasaoka Light	—	—	—	Kasaoka—Ihara	11.70	Dec. 7, „	Dec. 6, 1910	2.6	250,000	62,500	Dec. 7, „	—
Hambi Light ...	—	—	—	Kamigori—Emi	16.40	„ 15, „	May 15, 1912	3.6	1,000,000	—	„ 15, „	—
Shingu...	—	—	—	Shingu—Katsuura...	9.66	„ 22, „	—	3.6	600,000	298,095	„ 22, „	—
Usuki	—	—	—	Usuki—Mie	21.32	„ 27, „	„ 31, „	2.6	750,000	—	„ 27, „	—
Echigo...	—	—	—	Kashiwazaki—Niigata	50.20	Jan. 24, 1911	Mar. 25, 1911	3.6	1,500,000	675,000	Jan. 24, 1911	—
				Takasago—Nishiwaki	24.40							—
				Kunikane—Miki	4.15							—
Banshu...	—	—	—	Ao—Hojo	8.55	„ 25, „	„ 6, 1914	3.6	1,800,000	719,775	„ 25, „	—
				Awatsu—Kakogawa	.71							—
				Total	38.21							—
Igomayama Light	—	—	—	Kashiwabara—Kadoma...	12.78	Feb. 17, 1911	—	3.6	700,000	—	Feb. 17, „	—
Tohi	—	—	—	Yabegawa—waifu	37.00	„ 25, „	—	3.6	2,000,000	—	„ 25, „	—
Hokubu	—	—	—	Habu—Kumagaya...	9.00	„ „ „	—	3.6	200,000	20,000	„ „ „	—
Odawara Electric.	—	—	—	Yumoto—Miyagino	4.30	Mar. 1, „	Feb. 16, 1914	4.5	1,400,000	—	Mar. 1, „	—
Geibi	—	—	—	Hiroshima—Miyoshi	43.58	„ 2, „	—	3.6	2,600,000	—	„ 2, „	—
Jonan	—	—	—	Ninohashi, Azabu—Setagaya ...	6.44	„ 11, „	—	3.6	350,000	—	„ 11, „	—
Banto	—	—	—	Hachioji—Omama...	59.23	„ 13, „	—	3.6	1,500,000	—	„ 13, „	—
Uwajima Light ...	—	—	—	Hachiman—Asahi...	10.55	„ 27, „	Sep. 12, 1913	2.6	400,000	82,582	„ 27, „	—
Yoro	—	—	—	Kuwana—Haginaga	35.40	„ 28, 1910	—	3.6	500,000	150,000	„ 28, 1910	—
Shinano	—	—	—	Matsumoto—Omachi	19.40	Apr. 5, 1911	—	3.6	600,000	—	Apr. 5, 1911	—
Miyazaki Light ...	—	—	—	Ota—Utsunmi	13.27	„ 18, „	Mar. 14, „	3.6	500,000	125,000	„ 18, „	—
Tsukuba	—	—	—	Tsuchiura—Shimodate	21.15	„ 20, „	—	2.6	700,000	—	„ 20, „	—
Nagaoka	—	—	—	Nagaoka—Teradomari...	16.66	„ 24, „	—	2.6	500,000	—	„ 24, „	—
Kisei Light... ...	—	—	—	Oka—Nigo	35.48	„ 25, „	—	3.6	1,500,000	—	„ 25, „	—
Kurate Light ...	—	—	—	Kiyase—Kazuki	1.49	„ 27, „	—	2.6	100,000	—	„ 27, „	—
Hichiku	—	—	—	Ohara—Arao	9.40	May 5, „	—	3.6	500,000	—	May 5, „	—

Name of Co.	Line			Line not yet opened				Gauge	Capital		Approved date of establishment of Co.	When opened
	Section	Traffic mileage	Aggregate mileage	Section	Mileage	When granted charters	Estimated date of completion		Nominal	Paid up		
		m.c.	*m.c.*		*m.c.*			*ft. in.*	*yen*	*yen*		
Matsuzaka Light ..	—	—	—	Matsuzaka-Oishi	13.46	June 6, 1911	Aug. 30, 1913	2.6	400,000	—	June 6, 1911	—
				Yagawa-Okuchi	1.61	„ 17, „	Jan. 22, 1913				„ 17, „	—
				Total	15.27	—	—					
Itsukushima ...	—	—	—	Onishi-Yayama	1.25	„ 6, „	—	3.6	250,000	—	„ 6, „	—
Tawaramoto ...	—	—	—	Tawaramoto-Oji	6.64	„ 7, „	—	3.6	200,000	—	„ 7, „	—
Aichi	—	—	—	Chigusa-Inuyama	15.47	„ 12, „	—	3.6	800,000	80,000	„ 12, „	—
Sasayama Light...	—	—	—	Sasayama-Osawa	2.40	„ „ „	—	3.6	80,000	—	„ „ „	—
Himeji...	—	—	—	Himeji-Higashihashizaki	8.64	„ 15, „	—	3.6	400,000	—	„ 15, „	—
Yamazaki Light ..	—	—	—	Higashihashizaki-Sugazawa	10.25	„ „ „	—	4.8½	500,000	—	„ „ „	—
Fukushima Light.	—	—	—	Shikada-Fukushima	3.75	„ „ „	—	2.6	160,000	—	„ „ „	—
Fuji-Minobu ...	—	—	—	Omiya-Kofu	49.24	„ 23, „	—	3.6	3,500,000	—	„ 23, „	—
Moura	—	—	—	Yamaguchi-Moura...	3.73	„ 26, „	—	3.6	500,000	—	„ 26, „	—
Spa Excursion ...	—	—	—	Beppu-Okoshi	9.10	„ „ „	—	3.6	700,000	—	„ „ „	—
Oyama Light ...	—	—	—	Hiratsuka-Isehara	5.56	„ 28, „	—	2.6	100,000	—	„ 28, „	—
Seiyo Light ...	—	—	—	Gunchu-Yahatahama	37.24	„ „ „	—	3.6	2,000,000	—	„ „ „	—
				Yahatahama-Sugawa	1.56							
				Total	39.00							
Ube Light	—	—	—	Nishishinkawa-Ube	4.00	„ „ „	—	2.6	150,000	—	„ „ „	—
Hiroshima-Kure Elec. Power ...	—	—	—	Washo-Aga	2.18	„ „ „	—	3.6	600,000	—	„ „ „	—
Kikuchi	—	—	—	Waifu-Otsu	11.00	July 1, „	—	3.6	500,000	—	July 1, „	—
Iwate Light ...	—	—	—	Hanamaki-Kamigo	40.39	„ 5, „	—	2.6	1,000,000	—	„ 5, „	—
Ota Light	—	—	—	Ota-Iwajiku	9.07	„ 18, „	Jan. 31, 1914	2.0	60,000	50,000	„ 18, „	—
				Kasakake-Aioi	1.32	Feb. 1, 1912	—	2.0	14,000	—	Feb. 1, 1912	—
				Total	10.39	—	—	—	—	—	—	—
Kimura Light ...	—	—	—	Nagaoka, Shiraoka—Shimonakashima ...	1.44	July 18, 1911	Oct. 25, 1912	2.6	40,000	—	July 18, 1911	—
Iwami Light ...	—	—	—	Chiryu-Ohama	11.38	„ „ „	—	2.6	350,000	—	„ „ „	—
Koya Electric ...	—	—	—	Hashimoto-Koya	13.10	„ „ „	—	3.6	2,000,000	—	„ „ „	—
Tateyama Light ..	—	—	—	Tatsuno-Maezawashin	9.72	„ „ „	—	2.6	320,000	80,000	„ „ „	—
Shinminato Light.	—	—	—	Fukushima-Shinminato	15.48	„ „ „	—	3.6	550,000	—	„ „ „	—
Jomei	—	—	—	Ueno-Nabari	14.02	„ „ „	—	2.6	300,000	—	„ „ „	—
Hijiu	—	—	—	Takee-Ajimi	11.00	„ „ „	—	2.6	300,000	—	„ „ „	—
Yabakei	—	—	—	Toyota-Tsutami	13.75	„ 28, „	—	3.6	650,000	—	„ 28, „	—

Kagoshima Elec. ..	—	—	—	Kagoshima-Taniyama	4.00	Aug. 3, 1911	—	$4.8\frac{1}{2}$	1,000,000	250,000	Aug. 3, 1911	—
Choshu Light ...	—	—	—	Beppu-Shomyoshi	46.00	„ 4, „	—	3.6	1,500,000	—	„ 4, „	—
Chiko Light ...	—	—	—	Chiryu-Koromo	9.30	„ 5, „	—	2.6	300,000	—	„ 5, „	—
Chubi Light ...	—	—	—	Chaya-Sosha	10.13	„ 12, „	—	3.6	350,000	—	„ 12, „	—
Okawa Light ...	—	—	—	Okawa-Kurume	12.40	„ 17, „	Aug. 16, 1911	3.6	250,000	182,705	„ 17, „	—
Ichihata	—	—	—	Imaichi-Kozakai	13.05	„ 21, „	—	2.6	400,000	—	„ 21, „	—
Ryobi Light ...	—	—	—	Fukuyama-Takaya	9.56	„ „ „	—	2.6	450,000	45,000	„ „ „	—
				Kawaminami-Fuchu	10.40							
				Total	20.16							
Sun-en Light ...	—	—	—	Yaizu-Nakaizumi	45.00	„ 22, „	—	2.6	1,200,000	—	„ 22, „	—
Senhoku Light ...	—	—	—	Kogota-Ishinomaki	17.40	„ 23, „	Feb. 21, 1914	2.6	1,000,000	250,000	„ 23, „	—
				Toyoma-Tsukidate	21.20	„ „ „	—				„ „ „	—
				Total	38.60	—	—					
Toso	—	—	—	Fujieda-Kawasaki	11.60	„ 28, „	—	2.6	300,000	30,000	„ 28, „	—
Tamashima Light.	—	—	—	Tsumasaki-Tamashima	1.56	„ 29, „	—	3.6	90,000	22,500	„ 29, „	—
Kinfuku Light ...	—	—	—	Kanazawa-Fukumitsu	12.60	Sep. 9, 1911	—	3.6	500,000	—	Sep. 9, 1911	—
Kokura	—	—	—	Adachi-Kumata	26.74	„ „ „	Mar. 8, 1913	3.6	3,500,000	594,985	„ „ „	—
				Tomino-Haramachi	3.15	„ „ „	„ „ „	3.6	1,000,000	—	„ „ „	—
				Magarigane-Soeda	8.00	Oct. 13, 1913	Aug. 27, 1913	3.6	650,000	—	Oct. 13, 1911	—
				Total	38.09	—	—	—	—	—	—	—
Buko Light	—	—	—	Takeu-Sadamoto	4.61	Sep. 28, 1911	—	3.6	100,000	—	Sep. 28, „	—
Konan	—	—	—	Takagi-Yokaichi	5.32	„ 30, „	—	2.6	150,000	—	„ 30, „	—
Ujima	—	—	—	Hachiya-Harai	9.00	„ „ „	—	2.6	200,000	—	„ „ „	—
Nangu Light ...	—	—	—	Furue-Nakana	6.20	Oct. 7, „	—	2.6	180,000	—	Oct. 7, 1911	—
Senju Elec. Light.	—	—	—	Senju-Kawaguchi	6.40	„ 18, „	—	3.6	300,000	—	„ 18, „	—
Beppu Light ...	—	—	—	Kakogawa-Beppu	3.26	„ „ „	—	3.6	140,000	—	„ „ „	—
Musashino Light.	—	—	—	Sugamo-Hanno	24.70	„ „ „	—	3·6	1,000,000	—	„ „ „	—
Seibu Elec. Light.	—	—	—	Hachioji-Omiya	27.00	„ 30, „	—	3.6	1,500,000	—	„ 30, „	—
Joso Light	—	—	—	Shimodate-Torite	32.48	Nov. 1, „	—	2.6	800,000	—	Nov. 1, 1911	—
Nogami Light ...	—	—	—	Higata-Hashinogami	5.40	„ 10, „	—	3.6	200,000	—	„ 10, „	—
Yagake Light ...	—	—	—	Kitagawa-Yagake	3.20	„ 28, „	—	2.6	80,000	—	„ 28, „	—
Soshi Light ...	—	—	—	Sosha-Yagake...	11.20	„ „ „	—	2.6	330,000	—	„ „ „	—
Hambi Branch ...	—	—	—	Makuyama-Shingu	15.00	„ „ „	—	3.6	1,000,000	—	„ „ „	—
Satte	—	—	—	Kuki-Toyoka	6.12	Dec. 1, „	—	3.6	200,000	—	Dec. 1, 1191	—
Hagi	—	—	—	Shomyoshi-Tamaeura	14.00	„ „ „	—	3.6	700,000	—	„ „ „	—
Shinsan	—	—	—	Shinkawa-Asuke	34.74	„ 5, „	—	3.6	1,300,000	130,000	„ 5, „	—
Awa Electric ...	—	—	—	Dekijima-Kamo	1.50	„ 23, „	—	$4.8\frac{1}{2}$	400,00	—	„ 23, „	—
				Ojin-Muya	7.36							
				Total	9.06							

C. LIGHT RAILWAYS.—*Continued.*

Name of Co.	Line			Line not yet opened				Gauge	Capital		Approved date of establishment of Co.	When opened
	Section	Traffic mileage	Aggregate mileage	Section	Mileage	When granted charters	Estimated date of completion		Nominal	Paid up		
		m.c.	*m.c.*		*m.c.*			*ft.in.*	*yen*	*yen*		
Tenri Light ...	—	—	—	Horyuji-Tamlaichi	5.40	Jan. 4, 1912	—	3.6	250,000	—	Jan. 4, 1912	—
Kumamoto Light.	—	—	—	Kasuga-Takikawa	8.48	„ 10, „	—	3.6	500,000	—	„ 10, „	—
Hokusei	—	—	—	Kuwana-Ageki	12.40	„ 16, „	—	2.6	250,000	—	„ 16, „	—
Higashi-Osaka ...	—	—	—	Nanno-Kori...	3.60	„ 27, „	—	3.6	700,000	—	„ 27, „	—
				Ichimura-Nakasuji...	8.76							
				Total	12.56							
Ano	—	—	—	Shinmachi-Akira	9.60	Feb. 3, „	—	2.6	230,000	—	Feb. 3, „	—
				Shinmachi-Takamiya	6.20							
				Total	16.00							
Miyazaki	—	—	—	Miyazaki-Tsumamachi	18.00	„ 10, „	—	3.6	644,810	—	„ 10, „	—
				Obi-Aburatsu	4.00			2.6	189,040			
				Total	22.00							
Mino Electric ...	—	—	—	Gifu-Kasamatsu	2.78	„ 23, „	—	3.6	320,000	—	„ 23, „	—
Fuji	—	—	—	Kashima-Omiya	6.36	„ 28, „	—	3.6	300,000	66,000	„ 28, „	—
Arita Light... ...	—	—	—	Yuasa-Hasegawa	7.00	Mar. 9, „	—	3.6	400,000	—	Mar. 9, „	—
Chuen	—	—	—	Takao-Yokosuka	7.00	„ „ „	—	2.6	100,000	—	„ „ „	—
Hamamatsu Light.	—	—	—	Hamamatsu-Kiga	11.60	„ 5, „	—	2.6	350,000	—	„ 5, „	—
				Kanazashi-Okuyama	5.00							
				Iinoya-Ihira	2.65							
				Total	19.45							
Matsushima Light.	—	—	—	Shiogama-Matsushima	8.00	„ 18, „	—	2.6	200,000	—	„ 18, „	—
Toba	—	—	—	Toba-Ugata	16.40	„ 20, „	—	2.6	300,000	—	„ 20, „	—
Chuno Light ...	—	—	—	Gifu-Kanayama	43.45	„ 25, „	—	2.6	1,500,000	—	„ 25, „	—
				Ota-Yoshida	5.50							
				Total	49.15							
Kariwa Electric Light	—	—	—	Yasuda-Okanomachi	8.00	„ 27, „	—	2.6	250,000	—	„ 27, „	—
Kamo Light ...	—	—	—	Saijo-Aga	19.15	„ 28, „	—	2·6	800,000	—	„ 28, „	—
Takata	—	—	—	Nagasu-Takata	3.40	„ 30, „	—	2 6	110,000	—	„ 30, „	—
Nagara Light ...	—	—	—	Nagasu-Takatomi	3.60	„ „ „	—	3.6	120,000	—	„ „ „	—
Kihoku Light ...	—	—	—	Hayata-Kitagata	4.15	„ „ „	—	3.6	250,000	—	„ „ „	—
Total	325.77	366.66	... ...	1,803.72	—	—	—	97,667,085	15,273,607	—	—	

5.—CAPITAL ACCOUNTS.

A. CAPITAL ACCOUNTS OF PRIVATE RAILWAYS.

Name of Co.	Capital	Reserve fund	Item of Capital Account					Outlays of Capital Account				
			Paid up Capital	Debentures	Other debts	Others	Total	Construction		Stores	Others	Total
								Open line	Unopen line			
	yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
Narita	2,425,000	62,756	2,425,000	—	—	54,905	2,479,905	2,450,852	—	13,645	15,408	2,479,905
Chuetsu	1,050,000	89,998	990,000	—	68,001	—	1,192,656	937,402	56,802	48,757	149,695	1,192,656
Nankai	10,000,000	331,000	7,086,000	2,000,000	1,340,000	667,797	11,093,797	9,213,783	—	176,555	173,459	11,093,797
Chugoku	4,300,000	71,330	4,225,000	—	--	14,102	4,239,102	4,138,611	—	34,259	66,232	4,239,102
Tobu	5,300,000	73,800	3,180,000	2,500,000	822,826	178,956	6,681,782	6,485,419	—	160,509	35,854	6,681,782
Hakatawan	2,075,000	22,060	1,452,500	—	—	51,934	1,504,434	1,364,797	—	1,337	138,300	1,504,434
Yokohama	3,500,000	8,085	3,020,000	—	610,000	115,408	3,745,408	3,739,844	—	—	5,564	3,745,408
Ashio	2,000,000	—	1,998,325	—	—	35,730	2,034,055	218,441	846,309	191,728	777,577	2,034,055
Total	30,650,000	659,029	24,376,825	4,500,000	2,840,827	1,253,487	12,971,139	28,549,149	903,111	626,790	2,892,089	32,971,139

B. BALLANCE SHEET OF LIGHT RHILWAYS.

I. Assets.

Name of Co.	Unpaid capital	Cost of construction		Stores	Temporary payments	Deposits	Cash	Negotiable bonds	Account receivable	Others	Total
		Open line	Line not yet opened								
	yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
Iyo	360,000	970,608	—	19,585	13,681	28,840	—	9,238	1,405	20,806	1,424,163
Sano	—	192,382	—	5,497	—	14,075	302	1,995	1,133	2,856	218,249
Ome	200,000	513,520	—	3,763	16,241	36,652	275	684	16,316	78,553 1,959	867,963
Kawagoe	98,000	448,369	—	5,757	—	75,073	1,370	—	10,403	—	638,972
Kotsuke	63,145	601,963	—	5,184	63,491	25,826	55	—	648	6,435	766,747
Toyokawa	—	1,126,073	—	8,961	230,015	31,117	722	5,000	6,303	—	1,408,191
Bisai	—	712,960	—	4,542	186	17,145	46	746	11,324	1,873	748,822
Omi	45	1,708,848	—	3,341	39	24,325	213	565	8,607	4,464	1,750,447
Kanan	25,000	403,771	—	3,386	479	14,681	48	500	5,126	—	452,991
Ryugasaki	19,568	77,892	—	350	2,499	853	17	—	—	11,222	112,401
Jobu	300,000	983,070	—	3,221	2,269	59,933	638	—	6,970	—	1,356,101
Mito	—	311,623	—	1,362	1,322	56,897	12	—	5,263	—	376,479
Izu	180,000	437,984	—	1,926	930	86,281	6	—	833	—	707,060
Koyatozan	1,170,000	702,044	17,933 33,123	6,184	3,190	127,890	105	3,300	3,374	2,823	2,069,966
Kozaka	900,000	1,088,436	—	20,508	340	—	—	—	12,557	—	2,021,841
Chiba (prefectural management)	—	452,848	38,493	—	—	—	276,283	—	—	7,696 3,516	810,487
Shimabara	333,300	435,669	73,003	26,352	12,825	40,396	3,800	—	10,933	9,221 7,631	953,130
Uonuma	4,550	231,226	—	616	3,106	5,319	247	50	3,000	3,029	251,143
Nishio	—	236,567	—	6,957	1,215	—	299	—	—	1,864	246,902
Kamaishi coal mine line (private management)	—	235,932	—	—	—	—	—	—	—	14,068 238	250,238
Tosan	425,080	700,368	16,373	3,522	28,384	7,320	210	—	87	84,885	1,266,229
Hatsuse	97,500	256,252	—	617	509	157	286	—	440	3,473	359,234
Total	4,176,188	12,828,405	178,925	130,731	380,721	652,780	284,934	22,078	104,722	298,263	19,057,747

Name of Co.	Capital	Bonds and loans	Legal reserve	Special reserve	Temporary receipts	Securities	Balance brought over from preceding year	Profits for the year under review	Dividends payable	Account payable	Others	Total
	yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
Iyo	1,200,000	73,000	62,700	4,500	5,127	7,712	12,413	42,290	1,003	15,418	—	1,424,163
Sano	150,000	11,660	12,775	1,300	44	—	1,321	1,386	—	786	38,986	218,240
Ome	750,000	—	18,900	35,410	2,103	—	8,069	33,525	101	19,885	—	867,963
Kawagoe	500,000	30,000	31,900	5,790	32	—	15,310	34,370	—	21,570	—	638,972
Kotsuke	600,000	153,000	6,254	—	—	2,508	—	3,012	784	1,189	—	766,747
Toyokawa	1,300,000	—	30,740	12,273	67	220	1,628	41,104	1,096	21,063	—	1,408,191
Bisai	600,000	32,301	12,154	—	—	9,045	45,699	25,640	893	23,099	—	748,822
Omi	1,100,000	26,500	21,630	—	770	1,820	4,756	26,331	369	18,271	550,000	1,750,447
Kanan	350,000	—	4,150	3,200	—	587	379	13,814	42	10,819	70,000	452,991
Ryugataki	91,000	21,217	184	—	—	—	—	—	—	—	—	112,401
Jobu	1,000,000	300,000	5,000	8,598	702	—	2,088	14,827	1,579	23,307	—	1,356,101
Mito	230,000	85,744	9,880	19,650	933	—	1,891	17,126	—	11,255	—	376,479
Izu	600,000	—	6,820	2,393	63,819	—	2,798	20,286	—	865	10,079	707,060
Koyatozan	2,000,000	11,200	7,550	2,840	7,752	5,500	3,593	23,507	561	7,463	—	2,069,966
Kozaka	1,000,000	26,118	800	—	377	—	2,187	2,102	—	990,257	—	2,021,841
Chiba (Prefectural management	707,820	40,000	—	—	—	—	—	—	—	—	62,667	810,487
Shimabara	800,000	70,000	—	311	—	9,135	—	—	2,982	—	70,702	953,130
Uonuma	200,000	45,000	—	542	214	—	—	387	—	1,000	4,000	251,143
Nishio	150,000	93,703	—	—	—	—	—	—	—	2,114	1,085	246,902
Kamaishi coal-mine line (private management).	250,000	—	—	—	—	—	—	238	—	—	—	250,238
Tosan	1,000,000	45,686	—	—	3,977	840	—	14,077	—	16,245	185,404	1,266,229
Hatsuse	250,000	96,501	1,100	—	—	714	—	4,292	5,403	1,224	—	359,234
Total	14,828,820	1,161,630	232,528	96,807	85,917	38,081	102,132	318,314	14,813	1,185,800	992,905	19,057,747

C.—DETAILS OF CONSTRUCTION EXPENSES.

I.

	Name of Co.	Surveying expenses	Superintendent expenses for works	Right of way	Earthworks	Bridges	Culverts	Drain pipes	Tunnels	Parmanent ways	Stations	Wharfs
		yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
Private	Narita	12,575	41,748	305,843	443,514	199,614	70,617	27,883	29,265	649,178	96,517	—
	Chuetsu	9,056	37,303	92,671	101,102	152,155	43,933	9,936	—	205,169	45,971	964
		* 1,620	* 3,967	* 19,323	* 19,163	* 1,588	* 1,152	* 28	—	* 2,627	* 422	—
	Nankai	12,089	174,202	824,595	532,755	624,266	127,983	26,180	178,804	877,034	453,284	1,087
	Chugoku	14,411	63,986	535,003	1,013,268	386,448	139,460	17,863	340,478	* 550,727	153,530	—
		* 258	* 546	* 13,842	* 8,145	* 2,934	* —	* 999	—	11,457	* 6,953	
	Tobu	55,527	93,640	1,061,280	616,968	1,043,729	277,005	29,996	—	1,458,594	392,082	—
	Hakatawan	24,434	52,957	213, 05	147,922	86,222	44,692	9,398	—	294,730	5,506	69,728
	Yokohama	21,385	130,530	874,202	436,474	335,415	128,630	18,520	93,751	579,686	151,480	—
	Ashio	59,051	78,410	100,909	84,383	123,375	20,479	3,163	53,583	229,027	26,448	—
	Total	—	—	—	—	—	—	—	—	—	—	—
Light	Iyo	2,568	4,663	105,402	88,560	17,983	10,331	1,722	3,567	124,013	83,154	—
	Sano	2.529	1.078	23,713	10.865	24,051	1,758	353	—	54,698	10,889	—
	Ome	1,853	4,839	61,902	26,021	3,150	927	4,128	—	160,614	20,018	—
	Kawagoe	1,520	4,339	53,025	29,781	16,370	2,651	1,593	—	141,183	16,512	—
	Kotsuke	2,910	12,303	42,742	100,953	135,309	14,661	2,617	29,0 3	91,204	18.509	—
	Toyokawa	4,856	20,916	172,166	112,993	195,821	12,860	6,225	—	203,342	26,341	—
	Bisai	2,961	9,264	146,809	34,576	20,753	30,051	7,511	—	189,346	50,030	—
	Omi	5,938	35,098	331,825	168,809	308 304	36,227	17,573	27,207	326,805	37,346	—
	Kanan	930	1,082	32,194	51,137	24,696	11,902	3,228	—	38,118	8,432	—
	Ryugasaki	934	768	3,278	3,442	2,179	338	154	—	20,500	1,822	—
	Jobu	15,665	25,485	124,951	141,943	33,100	28,243	2,842	—	271,064	29,803	—
	Mito	1	—	1,538	2,149	4,361	211	231	—	965	7,593	—
	Izu	—	—	654	3	715	—	—	—	—	49	—
	Koyatozan	14,283	—	4,768	—	—	5,459	—	—	—	2,159	—
	Kozaka	4,642	53,544	57,779	140,825	145,021	6,520	4,850	178,432	203,683	38,462	—
	Chiba (prefectural management)	3,848	22,950	59,732	62,053	15,671	6,118	2,567	—	147,292	51,645	—
	Shimabara	6,084	28,802	123,581	59,376	35,726	20,416	12,249	9,878	88,861	25,422	—
	Uonuma	3,987	9,430	33.265	61,644	2,840	3,750	2,588	—	43.421	1,473	—
	Nishio	4.371	2,301	38,844	48,603	21,465	6,365	7,772	—	44.339	—	—
	Kamaishi coal mine line (private management)	1,890	—	2,469	37,952	54,842	—	—	—	56,142	11,731	—
	Tosan	20,169		59.719	42,789	45,394	12,540	4.243	—	137.820	13,799	—
	Hatsuse	—	—	39,442	57,766	18,486	—	—	—	40,451	1,224	—
	Total	—	—	—	—	—	—	—	—	—	—	—
Grand total		—	—	—	—	—	—	—	—	—	—	—

	Name of Co.	Rolling stock	Machine shops	Sundry buildings	Transportation	Construction train expenses	Tools etc. for construction	Fences and boundary posts	Telegraph and telephone wire laid	General expenses	Others	Total
		yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
Private	Narita	365,745	6,333	30,597	40,805	18,150	1,359	2,494	8,906	97,380	2,475	2,450,852
	Chuetsu	165,531	4,440	3,596	16,426	4,288	534	1,742	4,645	37,990	—	* 937,402
		* —	—	* 143	* 421	* 962	—	* 202	* 806	* 4,378	—	56,802
	Nankai	1,465,462	68,503	120,596	—	10,343	1,121	17,552	42,707	443,646	2421,551	8,415,559
	Chugoku	524,945	14,167	38,921	99,374	10,195	7,349	2,783	10,527	* 206,975	8,201	4,138,611
		* 25,296	—	822	* 373	—	* 229	—	* 184	1,889	—	* 73,927
	Tobu	934,577	18,780	59,335	156,771	33,643	6,492	21,602	50,115	175,283	—	6,485,418
	Hakatawan	161,990	2,967	24,294	5,007	7,120	25	1,569	5,586	159,605	2,040	1,364,797
	Yokohama	320,559	19,852	38,260	130,174	48,465	7,509	9,248	9,831	289,062	20,000 76,811	3,739,844
	Ashio	134,061	1,051	7,940	18,700	18,028	10,743	243	5,059	90,127	—	1,064,750
	Total	—	—	—	—	—	—	—	—	—	—	28,597,234 * 130,729
Light	Iyo	149,536	8,758	23,811	2,366	—	—	499	3,491	16,850	323,334	970,608
	Sino	55,012	44	2,187	1,106	—	108	240	1,509	2,242	—	192,382
	Ome	203,196	1,700	6,753	3,351	1,379	756	222	1,046	11,611	—	513,520
	Kwagoe	150,448	1,479	4,468	5,762	2,567	154	601	1,289	14,688	—	448,369
	Kotsuke	99,935	3,723	4,835	6,835	2,346	1,322	755	2,552	29,488	—	601,963
	Toyokawa	219,183	2,793	51,974	20,231	1,380	10,584	2,135	3,722	58,551	—	1,126,073
	Bisai	152,935	2,435	11,622	8,703	6,435	2,478	2,034	4,025	30,992	—	712,960
	Omi	21,430	1,445	9,102	15,767	11,197	10,905	2,073	5,628	138,169	—	1,708,848
	Kanan	46,197	619	386	1,009	3,854	580	674	934	10,850	166,949	403,771
	Ryugasaki	22,991	—	3,022	1,219	—	202	12	288	16,743	—	77,892
	Jobu	147,058	999	29,078	24,025	9,309	3,086	945	4,523	90,051	—	983,070
	Mito	16,306	453	2,028	2	—	—	16	724	145	274,800	311,623
	Izu	—	—	—	—	—	—	—	—	—	436,563	437,984
	Koyatozan	38,900	—	—	—	—	—	—	—	9,987	677,544	753,100
	Kozaka	187,709	3,048	23,094	4,741	12,371	2,127	673	8,228	12,677	19,476	1,088,436
	Chiba (prefectural management)	49,632	4,832	29,969	866	—	1,087	—	11,390	1,613	—	491,341
	Shimabara	26,680	738	3,083	6,418	7	2,218	1,572	2,695	54,866	—	508,672
	Uonuma	27,640	—	1,226	7,210	3,730	4,050	500	1,550	18,900	4,022	231,226
	Nishio	29,386	—	12,104	2,142	—	—	239	1,574	17,062	—	236,567
	Kamaishi coal mine (under private managent)	56,433	—	—	1,293	—	1,401	2,602	2,137	7,040	—	235,932
	Tosan	83.750	180	9,030	4,820	—	—	802	—	61,240	220,444	716,741
	Hatsuse	49,702	—	—	—	—	—	—	634	23,654	245,337	256,252
	Total	—	—	—	—	—	—	—	—	—	—	13,138,059
Grand Total		—	—	—	—	—	—	—	—	—	—	41,735,293

6.—TRAFFIC.

A. RESULTS OF TRAFFIC.

	Name of Co.	Number			Aggregate milage		Peceipts (fare)				
		Passenger	Luggage	Goods	Passenger	Goods	Passenger	Luggage	Posts	Freight	Total
		ton	*ton*	*ton*	*ton*	*ton*	*yen*	*yen*	*yen*	*yen*	*yen*
Private	Narita	1,061,444	350	142,218	13,847,400	2,931,649	252,732	3,339	1,490	× 51,642 × 13,401	322,604
	Chuetsu	771,120	291	141,335	5,531,322	1,320,649	94,404	△ 2,695 △ 5	1,263	× 38,506 × 21,126 △ 6,764	164,763
	Nankai	11,918,921	2,412	362,068	80,219,146	6,353,836	1,088,766	22,489	2,649	× 123,855 × 31,570	1,269,329
	Chugoku	1,435,946 * 264,296	* 298 * 1	163,861	15,382,462 * 392,181	4,408,673	250,617 * 9,867	△ 3,249 △ 191 * △ 7 △ 2	3,015	△ 113,753 △ 60 × 15,365	386,250 * 9,876
	Tobu	2,060,933	686	506,076	29,646,012	9,500,166	476,165	△ 8,146 △ 677	2,897	× 216,609 × 48,708 △ 59	753,261
	Hakatawan	197,947	44	301,131	983,361	3,312,579	20,255	278	—	× 86,488 × 49,200	156,221
	Ashio	127,591	31	11,425	553,382	51,413	10,229	117	--	× 1,524 × 1,377	13,247
	Total	17,573,902 * 264,296	* 4,112 * 1	1,628,114	146,163,' 85 * 392,181	27,878,965	2,193,168 * 9,867	40,313 △ 873 * △ 7 △ 2	11,314	× 632,377 × 180,747 △ 6,883	3,065,675 * 9,876
	Iyo	3,059,894	3,593	89,902	11,755,809	637,692	168,373	5,726 △ 2,388	796	21,718 × 10,780 △ 696	210,477
	Sano	168,489	47	52,382	780,483	350,311	15,024	167 △ 5	194	× 8,450 × 10,943 △ 171	34,954
	Ome	235,224	132	189,737	1,761,378	1,934,977	33,117	958 △ 1	540	× 39,491 × 7,079 △ 1	81,187
	Kawagoe	631,665	407	143,866	4,858,430	1,653,672	80,864	3,141 △ 3	751	× 39,606 × 11,620 △ 3	135,988
	Kotsuke	268,567	34	36,179	2,278,492	554,715	50,775	257	599	× 18,872 × 5,535	76,038
	Toyokawa	950,633	153	76,087	6,280,484	672,937	115,950	1,449	694	× 20,630 × 9,536	148,259

	Bisai	661,270	102	68,534	3,636,735	686,428	70,317	△ 1,007 △ 439	632	× 14,463 △ 7,128 △ 7,727	101,713
	Omi	681,172	443	63,941	4,518,963	613,928	99,412	2,820	1,067	× 21,722 × 9,034	134,055
	Kanan	709,997	134	51,586	3,086,712	245,033	49,427	710	438	× 8,330 × 4,185	63,090
	Ryugasaki	104,505	17	8,664	279,908	23,261	7,056	108	247	× 1,204 × 1,479	10,094
	Jobu	256,409	85	130,256	2,424,512	906,024	43,899	△ 696 △ 19	621	× 20,434 × 7,599 △ 11	73,279
Might	Mito	228,156	132	44,991	1,965,800	485,898	35,132	1,261	612	× 15,247 × 5,605	57,857
	Izu	541,804	151	45,974	3,064,460	339,958	59,023	△ 895 △ 3	600	× 10,579 × 5,180 △ 24	76,304
	Koyatozan	1,405,718	118	114,141	10,275,013	1,148,183	106,093	1,165	338	× 30,001 × 3,934	141,531
	Kozaka	114,732	20	170,164	1,347,051	1,775,398	27,263	△ 453 △ 2	720	× 81,448 × 14,265	124,151
	Chiba (prefectural management)	211,742	34	32,483	1,273,141	251,539	27,197	332	130	× 8,067 × 3,982	39,708
	Shimabara	66,825	12	565	285,841	3,584	7,285	144	—	× 260 × 207	7,896
	Uonuma	36,691	1	1,849	233,846	14,836	5,564	△ 38 △ 21	111	× 545 × 483	6,762
	Nishio	41,791	2	82	234,029	676	6,138	△ 34 △ 2	—	× 71 × 10	6,255
	Kamaishi coal mine line (under private management)	5,977	2	34,167	48,032	315,009	985	△ 24 △ 8	—	7,263	8,280
	Tosan	343,173	—	—	1,674,684	—	23,949	—	—	—	23,949
	Hatsuse	265,364	18	—	803,160	—	25,103	31	—	—	25,134
	Total	11,254,094	5,638	1,355,550	63,259,144	12,615,059	1,067,813	△ 21,423 △ 2,893	9,090	× 368,401 × 118,584 △ 8,633	1,596,837
Grand total		28,827,996	9,750	2,983,664	209,422,229	40,494,024	3,260,981	△ 61,736 △ 3,766	20,404	× 1,000,778 × 299,331 △ 15,516	4,662,512
Inc. or dec. against preceding year		2,918,742	1,074	669,297	17,986,506	9,509,661	300,596	△ 7,757 △ 2,749	458	× 182,850 × 50,955 △ 3,651	549,016

Note :—Figures marked with (△) denote storage, wagon hires, etc., and those marked with (×) terminal charges.

B. TRAFFIC MILEAGE AND RECEIPTS.

	Name of Co.	Traffic mileage at the end of the year	Average traffic mileage during the year	Day mileage	Average number carried per day per mile		Average train mileage				Average per passenger			Average per ton		
							Passenger		Goods							
					Passenger	Goods	Passenger mileage	Fare	Ton-mileage	Fare	Mileage	Receipts	Fare per mile	Mileage	Receipts	Fare per mile
		m.c.	*m.c.*	*day mile*	*pass mile*	*ton mile*	*pass mile*	*yen*	*ton mile*	*nye*	*m.*	*rin*	*mo*	*m.*	*rin*	*mo*
Private	Narita	45.06	45.06	16,497	839.4	177.7	49.9	.91	10.6	.19	13.0	238	183	20.6	363	176
	Chuetsu	23.06	23.06	8,445	655.0	156.4	43.8	.75	10.4	.30	7.2	122	171	9.3	272	292
	Nankai	42.15	42.15	15,441	5,195.2	411.5	124.6	1.69	9.9	.19	6.7	91	136	17.5	342	195
	Chugoku	48.60 * 1.40	48.60 * 1.30	17,843 * 503	862.1 * 779.7	247.1	67.0 * 36.4	1.09 * .92	19.2	.50	10.7 * 1.5	175 * 37	163 * 252	26.9	694	258
	Tobu	72.33	72.33	26,503	1,118.6	358.5	48.4	.78	15.5	.35	14.4	231	161	18.8	428	228
	Hakatawan	16.34	16.34	6,012	1,536	551.0	10.3	.21	34.6	.90	5.0	102	206	11.0	287	261
	Ashio	4.38	4.38	1,638	337.8	314	21.0	.39	2.0	.58	4.3	80	185	4.5	133	296
	Total	252.32 * 1.40	252.32 1.30	92,379 * 503	1,582.2 * 779.7	301.8	72.7 * 36.4	1.09 * .92	13.9	.31	8 3 * 1.5	125 * 37	150 * 252	17.1	288	227
Light	Iyo	26.78	26.78	9,846	1,194.0	64.8	35.1	.50	1.9	.06	3.8	55	143	7.1	242	341
	Sano	9.74	9.74	3,633	214.8	96 4	13.5	.26	6.1	.15	4.6	89	192	6.7	161	241
	Ome	13.00	13.00	4,758	370.2	406.7	24.2	.46	26.6	.54	7.5	141	188	10.2	208	204
	Kawagoe	18.36	18.36	6,753	719.4	244.9	34.0	.57	11.6	.28	7.7	128	166	11.5	275	240
	Kotsuke	21.00	21.00	7,686	296.4	72.2	20.1	.45	4.9	.17	8.5	189	228	15.3	522	340
	Toyokawa	18.36	18 36	6,753	930.0	99.7	65.0	1.20	7.0	.21	6.6	122	185	8.8	271	307
	Bisai	15.46	15.46	5,700	638.0	120,4	39.9	.77	7.5	.16	5.5	106	193	10.0	211	211
	Omi	26.01	26.01	9,521	474.6	64.5	37.1	.82	5.0	.18	6.6	146	220	9.6	340	354
	Kanan	10.22	10.22	3,761	820 7	65.2	51.8	.83	4.1	.14	4.3	70	160	4.7	161	340
	Ryugasaki	2.64	2.64	1,022	273.9	23.7	13.8	.35	1.2	.06	2.7	68	252	2.8	139	496
	Jobu	21.04	16.19	5,927	409.1	152.9	37.2	.67	13.9	.31	9.5	171	181	7.0	157	226
	Mito	12.11	12.11	4,430	443.7	109.7	44.1	.79	10.9	.34	8.6	154	179	10.8	339	314
	Izu	10.51	10.51	3,883	789.2	87.6	54.9	1.06	6.1	.19	5.7	109	193	7.4	230	311
	Koyatozan	17.31	17.31	6,364	1,614.6	180.4	41.6	.43	4.6	.12	7.3	25	103	10.1	263	261
	Kozaka	16.24	16.24	5,906	225.8	297.6	23.5	.48	30.9	1.42	11.7	238	202	10.4	479	459
	Chiba (prefectural management)	24.45	17.22	6,323	201.4	39.8	20.1	.43	4.0	.13	6.0	128	214	7.7	248	321
	Shimabara	7.54	3.75	1,437	198.9	2.5	19.0	.41	.2	.01	4.3	109	255	6.3	460	725
	Uonuma	8.06	2.33	881	265.4	16.8	18.0	.43	1.1	.04	6.4	152	238	8.0	295	367
	Nishio	8.25	1.35	525	445.8	1.3	22.4	.59	.1	.01	5.6	147	262	8.2	866	1,050
	Kamaishi coal mine line (private management)	9.71	1.48	584	82.2	539.4	4.9	.10	32.1	.74	8.0	165	205	9.2	213	231
	Tosan	7.52	2.66	1,034	1,619.6	—	63.0	.90	—	—	4.9	70	143	—	—	—
	Hatsuse	3.34	3.34	1,254	640.5	—	79.8	2.49	—	—	3.0	95	313	—	—	—
	Total	311.05	269.36	98,544	641.9	131.1	36.3	.61	7.2	.21	5.6	95	169	9.3	272	292
Grand total		563.37	521.68	190,923	1,096.9	114.7	55.8	.87	10.8	.27	7.3	113	156	13.6	335	247
Inc. or dec. (△) against preceding year		51.41	32.04	12,147	26.1	△ 58.6	△ 1.6	△ .02	1.5	.02	△ .1	△ 1	1	.2	△ 18	△ 17

N.B.—Day mileage indicates the length of open mileage as multiplied by the total days of the year (365).

6.—RAILWAY ACCIDENTS.

During the year under review 67 cases of accidents occurred either to the tracks or to trains in operation, some of the most serious cases being described below:—

On the 15 June, 1912, at 8.55 A.M. as No. 6 up train was approaching Kazo station on the Tobu railway in accordance with what the facing switch indicated and proceeding on the track for down trains, it struck No. 21 train that happened to be standing on the same track with the result that the engines of both trains, two carriages and four wagons sustained damage, while two passengers suffered slight injury through a violent rebound of the trains. The cause of the accident was traceable to a clear signal displayed regardless of the position assumed by the switch.

On the 7th September, 1912, at 11.3 P.M. an express electric car which left Dogo for Komachi was passing the branch point 1 m. 67 ch. distant from her destination when it suddenly came in collision with with No. 78 erectric car which was proceding regardless of the danger signal with the result that both cars were damaged and derailed while two passengers were slightly injured. The accident was due to carelessness on the part of the conductor in No. 147 car who let the car to proceed despite the warning of the danger signal.

A. NUMBER OF ACCIDENTS.

	Name of Co.	Derailment						Collision					Overturned			Trains misguided	Defects in vehicles			Track obstructed		Train obstructed	Cars outrunning	Fire	Others	Total number of accidents
		Number of accidents	Number of vehicles																							
			Locomotive	Carriage	Electric car	Steam motor car	Wagon	Locomotive	Passenger train	Electric car	Freight train	Vehicle	Number of accident	Carriage	Wagon		Locomotive	Steam motor car	Wagon	Natural calamity	Human agency	Human agency				
Private	Narita	4	3	—	—	—	2	—	1	—	—	—	—	—	—	—	3	—	—	—	—	—	—	—	—	8
	Chuetsu	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	1
	Nankai	3	1	—	1	—	5	1	1	—	—	—	—	—	—	—	1	—	2	—	—	2	—	—	—	10
	Chugoku	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	3
	Tobu	2	1	—	—	—	2	—	1	—	—	1	—	—	—	2	1	—	—	1	2	24	—	—	1	35
	Ashio	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	2	—	—	—	3
	Total	9	5	—	1	—	9	1	4	—	—	1	—	—	—	2	6	—	2	3	3	28	—	—	1	60
Light	Iyo	17	3	1	—	—	13	1	—	2	—	—	—	—	—	6	5	—	—	—	4	4	—	1	7	46
	Sano	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	1	2
	Ome	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	2
	Kawagoe	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—	3
	Kotsuke	7	2	3	—	—	6	—	—	—	—	—	—	—	—	—	—	—	—	2	—	1	—	1	—	11
	Toyokawa	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—	1	—	—	1	—	1	—	—	1	5
	Bisai	2	—	1	—	—	1	—	—	—	—	—	—	—	—	1	3	—	—	—	—	—	—	—	—	6
	Omi	2	1	1	—	—	—	—	1	—	—	—	—	—	3	—	1	2	—	—	—	—	—	—	—	7
	Kanan	1	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	2
	Ryugasaki	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
	Jobu	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1
	Mito	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	2
	Izu	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	3	—	—	—	1	—	5
	Koyatozan	9	2	—	—	—	9	1	—	—	1	—	—	—	—	—	—	—	—	—	3	—	—	—	—	14
	Chiba (prefectural management)	16	5	10	—	—	3	—	—	—	—	—	2	1	1	2	6	—	—	3	—	6	—	—	1	36
	Uonuma	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	—	—	—	—	1	7
	Kamaishi coal mine line	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1
	Total	59	16	16	—	1	34	1	1	2	1	—	3	1	4	9	19	2	—	18	7	13	1	3	12	151
Grand total		68	21	16	1	1	43	2	5	2	1	1	3	1	4	11	25	2	2	21	10	41	1	3	13	211

B. DEATHS AND INJURIES.

	Name of Co.	Passengers				Officials				Others								Total	
		Accidents		Negligence		Accidents		Negligence		Accidents		Negligence		Suicide		Cause unknown			
		Death	Injury	Death	Injury	Death	Injury	Death	Injury	Death	Injury	Death	Injury	Death	Injury	Death	Injury	Death	Injury
Private	Narita	—	—	—	1	—	—	—	—	—	—	2	2	12	2	—	—	14	5
	Chuetsu	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	1
	Nankai	—	—	1	6	—	—	3	1	—	—	13	28	10	1	—	—	27	36
	Chugoku	—	—	—	1	—	—	—	—	—	—	1	1	5	—	1	—	7	2
	Tobu	—	4	1	1	—	—	1	1	—	—	7	3	26	1	—	—	35	10
	Ashio	—	—	—	—	—	—	—	—	—	—	—	—	2	1	—	—	2	1
	Total	—	4	2	9	—	—	4	2	—	—	23	35	55	5	1	—	85	55
Light	Iyo	—	2	—	3	—	—	—	1	—	—	1	5	2	1	—	—	3	12
	Ome	—	—	—	—	—	—	—	—	—	—	1	—	3	—	—	—	4	—
	Kawagoe	—	—	—	—	—	—	—	—	—	—	—	—	4	5	—	—	4	5
	Kozuke	—	—	—	—	—	—	1	—	—	—	—	1	2	—	—	—	3	1
	Toyokawa	—	—	—	—	—	—	—	—	—	—	2	2	2	—	1	—	5	2
	Bisai	—	—	—	1	—	—	—	—	—	—	2	2	2	—	—	—	4	3
	Omi	—	—	—	—	—	—	1	—	—	—	—	—	1	—	—	—	2	—
	Kanan	—	—	—	—	—	—	—	—	—	—	1	—	1	1	—	—	2	1
	Ryugasaki	—	—	—	—	—	—	—	1	—	—	1	1	—	—	—	—	1	2
	Izu	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	1
	Koyatozan	—	—	—	—	—	1	—	—	2	—	4	5	6	—	—	—	12	6
	Chiba (prefectural management)	—	—	—	—	—	1	—	—	—	—	—	2	—	—	—	—	—	3
	Total	—	2	—	4	—	2	2	3	2	—	12	18	23	7	1	—	40	36
Grand total		—	6	2	13	—	2	6	5	2	—	35	53	78	12	2	—	125	91

8.—TRAFFIC RECEIPTS & EXPENSES.

A. TRAFFIC RECEIPTS AND EXPENSES.

	Name of Co.	Traffic receipts.				Traffic expenses					Profit	
		Coaching receipts	Goods receipts	Sundries	Total	Maintenance of way	Locomotive	Transportation	General	Total	Amount	Percentage against construction expenses
		yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	
Private	Narita	257,561	65,042	31,344	353,947	45,903	51,691	24,589	23,035 × 23,295	168,513	185,434	.076
	Chuetsu	98,367	66,397	10,705	175,469	9,796	27,036	14,828	4,392 × 16,895	72,947	102,522	.109
	Nankai	1,113,904	155,425	38,890	1,308,219	58,850	85,822 114,350	138,702	45,954 × 92,661	536,339	771,880	.092
	Chugoku	257,072 * 9,876	129,178	34,066 * 10	420,316 * 9,886	33,941 * 587	73,048 * 1,900	43,874 * 1,120	20,849 × 26,352 * 8 × 1	198,064 * 3,616	222,252 * 6,270	.054 * .085
	Tobu	487,885	265,375	8,143	761,403	40,764	116,455	87,018	22,842 × 39,048	306,127	455,276	.070
	Hakatawan	20,532	135,689	23,871	180,092	25,241	23,452	21,410	14,609 × 11,151	95,863	84,229	.062
	Ashio	10,347	2,901	15,515	28,763	1,807	5,634	8,646	2,105 × 622	18,814	9,949	.046
	Total	2,245,668 * 9,876	820,007	162,534 * 10	3,228,209 * 9,886	216,302 * 587	497,488 * 1,900	339,067 * 1,120	133,786 × 210,024 * 8 × 1	396,067 * 3,616	1,831,542 * 6,270	.076 * .085
Light	Iyo	177,283	33,194	12,417	222,894	19,529	29,923	49,771	12,269 × 14,654	126,176	96,718	.100
	Sano	15,390	19,565	1,748	36,703	7,260	9,499	6,868	2,482 × 3,099	29,208	7,495	.039
	Ome	34,616	46,571	6,837	88,024	5,909	20,383	12,259	2,796 × 3,310	44,657	43,367	.084
	Kawagoe	84,759	51,230	7,400	143,389	11,649	31,956	15,192	12,047 × 7,912	78,756	64,633	.144
	Kotsuke	51,631	24,407	2,254	78,292	13,317	35,336	8,656	2,605 × 2,999	62,913	15,379	.026
	Toyokawa	118,094	30,166	11,809	160,069	13,269	19,724	14,826	10,882 × 10,780	69,481	90,588	.080
	Bisai	72,396	29,317	1,112	102,825	7,661	20,669	14,644	6,445 × 5,899	69,413	47,507	.067
	Omi	103,299	30,756	4,764	138,819	14,133	32,161	17,578	11,597 × 7,094	82,563	56,256	.033

8.—TRAFFIC RECEIPTS AND EXPENSES.—*Continued.*

A. TRAFFIC RECEIPTS AND EXPENSES.

	Name of Co.	Traffic receipts				Traffic expenses					Profit	
		Coaching receipts	Goods receipts	Sundries	Total	Maintenance of way	Locomotive	Transportation	General	Total	Amount	Percentage against construction expenses
		yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
	Kanan	50,575	12,515	2,626	65,716	3,571	18,057	9,766	6,114 × 2,674	40,182	25,534	.063
	Kyugasaki	7,411	2,683	262	10,356	753	3,784	812	1,360 × 342	7,051	3,305	.042
	Jobu	45,235	28,045	10,865	84, 45	7,433	15,613	12,338	5,172 × 3,882	44,438	39,707	.040
	Mito	37,005	20,852	9,187	67,044	5,354	11,554	8,450	4,818 × 4,159	34,335	32,709	.105
	Izu	60,520	15,784	2,591	78,895	6,826	12,577	9,688	4,036 × 4,954	38,081	40,814	.093
	Koyatozan	107,597	33,934	7,674	149,205	9,887	49,225	22,128	10,815 × 8,158	100,213	48,992	.070
Light	Kozaka	28,438	95,713	1,055	125,206	16,618	24,206	10,482	7,596 × 1,066	59,968	65,238	.060
	Chiba (prefectural management)	26,970	12,346	6,017	45,333	10,750	22,840	24,343	1,868	59,801	14,468	.032
	Shimabara	7,429	467	7,789	15,685	3,046	5,454	4,654	755 × 26	13,935	1,750	.004
	Uonuma	5,735	1,028	232	6,995	1,687	1,882	1,437	1,407 × 47	6,460	535	.002
	Nishio	6,174	81	59	6,314	675	1,201	663	2,450 × 6	4,995	1,319	.006
	Kamaishi coal mine line (private managenent)	1,016	7,263	—	8,279	912	3,807	2,386	936	8,041	238	.001
	Tosan	23,949	—	521	24,470	2,715	755 5,816	4,728	3,451 × 58	17,5 3	6,947	.010
	Hatsuse	25,134	—	86	25,220	1,758	7,480	2,680	5,600 × 87	17,605	7,615	.030
Total		1,100,532	495,917	97,315	1,693,764	165,299	385,802	255,469	117,539 × 81,207	1,005,316	688,448	.053
Grand total		3,346,200	1,315,924	259,849	4,921,973	381,601	883,290	594,536	251,325 × 291,231	2,401,983	2,519,990	.068
Inc. or dec. (△) against preceding year		310,873	237,755	△ 99,972	448,656	401	100,729	92,381	36,158 × 28,998	258,667	189,989	.002

A. TRAFFIC RECEIPTS AND EXPENSES.

	Name of Co.	Sundry Profits	Interests and extra-ordinary expenses	Net Profit	Brought over from the preceding year	Dividend				Transferred to the next year
						Reserve	Bonus	Dividend		
								Amount	Percent	
		yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*		*yen*
Private	Narita	—	1,963	183,471	1,964	9,500 △ 13,300	13,000	72,750 72,750	.060 .060	4,135
	Chuetsu	—	1,152	101,370	2,815	5,090	6,993	42,968 44,768	.100 .100	4,366
	Nankai	163,077 69,631	170,457 34,621	799,510	104 830	41,200	30,200	274,764 315,832	.085 .090	242,344
	Chugoku	—	37 1,969 1,173	225,343	5 642	11,320	13,500	98,900 143,480	.046 .047	5,785
	Tobu	—	163,557	291,719	556	14,69	—	124,020 143,100	.078 .090	10,465
	Hakatawan	—	—	84,229	2,763	4,225	4,210	35 275 36,105	.050 .050	7,177
	Ashio	3,500	—	13,449	480	—	—	—	—	13,929
	Total	236,208	373,756 * 1,173	1,699,091	119,050	99,325	67.9 3	648,677 714,035	—	288,201
Light	Iyo	3,623	3,867 19,364	77,110	26,593	5,000 △ 2,00	6,500	42,000 36,120	.100 .086	12,083
	Sano	—	828 2,000	4,667	1,090	335 △ 335	650	3,000 1,410	.040 .019	27
	Ome	25,593	99 6,818	62,042	6,640	3,150 △ 10,440	3,150	19,250 22,000	.070 .080	10,693
	Kawagoe	—	1,828	62,805	9,976	3,250	3,250	20,100 20,100	.100 .100	26,081
	Kotsuke	—	12,425	2,954	6,378	—	—	—	—	3,424
	Toyokawa	—	611 779 8,500	80,698	2,035	4,100	700	38,000 38,000	.076 .076	1,931
	Bisai	—	2,197	45,310	45,028	2,300	—	18,000 21,000	.060 .070	49,038
	Omi	—	1,262 7,000	47,994	6,593	2,820	3,000	22,000 11,000	.040 .020	15,767
	Kanan	—	—	25,534	32	1,350 △ 4,000	1,040	7,500 793 9,000 1,000	.050 .080 .060 .080	883
	Ryugasaki	—	937 2,368	—	—	—	—	—	—	—
	Jobu	—	13,134	26,573	122	2,000	1,320	8,200 11,000	.012 .092 .020 .100	4,175
	Mito	—	497	32,212	1,305	1,700 △ 5 200	6,000	9,200 9,200	.080 .080	2,217
	Izu	—	573	40,241	461	2,040	1,773	15,750 16,800	.075 .080	4,339
	Koyatozan	—	3,500	45,492	1,957	2,280	2,220	18,200 22,300	.060 .060	2,449
	Kozaka	—	59,770	5,468	2,022	400	—	3,000 3,000	.060 .060	1,090
	Chiba (prefectural management)	—	20,000	34,468	—	—	699	—	—	35,167
	Shimabara	—	1,750	—	—	—	—	—	—	—
	Uonuma	—	148	387	—	19	—	—	—	368
	Nishio	—	230	1,089	2,953	—	—	—	—	1,864
	Kamaishi (private management)	—	—	238	—	—	—	238	—	—
	Tosan	—	15	6,932	7,144	—	—	—	—	14,076
	Hatsuse	—	—	7,615	1,490	600	500	3,813 3,812	.050 .050	380
	Total	29,216	171,673	540,894	103,155	53,319	30,802	228,806 225,980	— —	105,142
	Grand total	265,424	545,429	2,239,985	222,205	152,644	98,705	877,483 940,015	— —	393,343
	Inc. or dec. (△) against preceding year	196,842	16,544	370,287	76,530	32,599	13,910	152,236 101,121	— —	146,951

B. AVERAGE TRAFFIC RECEIPTS AND EXPENDITURES PER DAY PER MILE, AND PER TRAIN MILE, Etc.

	Name of Co.	Traffic Receipts				Traffic Expenses					Net profit	Average per train mile			Traffic per 100 yen of traffic receipts
		Coaching receipts	Good receipts	Sundries	Total	Maintenance of way	Locomotive	Transportation	General	Total		Traffic receipts	Traffic expenses	Profit	
		yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
Private	Narita	15.61	3.95	1.90	21.46	2.78	3.14	1.49	2.81	10.22	11.24	1.28	.61	.67	47.61
	Chuetsu	11.65	7.86	1.27	20.78	1.16	3.20	1 76	2.52	8.64	12.14	1.39	.58	.81	41.57
	Nankai	72.14	10.06	2.52	84.72	3.81	{ 5.56 / 7.40 }	8.98	8.98	34.73	49.99	2.03	.83	1.20	41.00
	Chugoku	{ 14.41 / * 19.64	7.24 / —	1.91 / —	23.56 / * 19.65	1.90 / * 1.16	4.09 / 3.78	2.46 / * 2.21	2.65 / * .02	11.10 / * 7.19	12.46 / * 12.46	1.83 / * 1.39	.86 / * .34	.97 / * .58	47.12 / * 36.58
	Tobu	18.41	10.01	.31	28.73	1.53	4.40	3.29	2.33	11.55	17.18	1.24	.50	.74	40.21
	Hakatawan	3.42	22.57	3.97	29.96	4.20	3.90	3.60	4.28	15.95	14.01	1.88	1.00	.88	53.23
	Ashio	6.32	1.77	9.47	17.56	1.10	3.44	5.28	1.67	11.49	6.07	1.09	.71	.38	65.41
	Total	{ 24.31 / * 19.64	8.88 / —	1.76 / —	34.95 / * 19.64	2.34 / * 1.17	5.39 / * 3.78	3.67 / * 2.21	3.72 / * .02	15.12 / * 7.18	19.83 / * 12.46	1.60 / * .92	.69 / * .34	* .91 / .58	43.26 / * 36.58
Light	Iyo	18.01	3.37	1.26	22.64	1.98	3.04	5.06	2.74	12.82	9.82	.67	.38	.29	56.61
	Sano	4.24	5.38	.48	10.10	2.00	2.61	1.89	1.54	8.04	2.06	.63	.50	.13	79.58
	Ome	7.28	9.78	1.44	18.50	1.24	4.29	2.58	1.28	9.39	9.11	1.21	.61	.60	50.73
	Kawagoe	12.55	7.59	1.09	21.23	1.72	4.73	2.25	2.96	11.66	9.57	1.00	.55	.45	54.92
	Kotsuke	6.72	3.18	.29	10.19	1.73	4.60	1.12	.73	8.19	2 00	.69	.55	.14	80.36
	Toyokawa	17.48	4.48	1.74	23.70	1.96	2.92	2.20	3.21	10.29	13.41	1.66	.72	.94	43.41
	Bisai	12.70	5.14	.20	18.04	1.34	3.63	2.57	2.16	9.70	8.34	1.13	.61	.52	53.80
	Omi	10.85	3.23	.50	14.58	1.48	3.38	1.85	1.96	8.67	5.91	1.14	.68	.46	59.48
	Kanan	13.44	3.33	.70	17.47	.95	4.80	2.60	2.33	10.68	6.79	1.10	.67	.43	61.14
	Ryugasaki	7.25	2.63	.25	10.13	.74	3.70	.79	1.67	6.90	3.23	.51	.35	.16	68.09
	Jobu	7.63	4.73	1.84	14.20	1.25	2.64	2.08	1.53	7.50	6.70	1.29	.68	.61	52.81
	Mito	8.35	4.71	2.07	15.13	1 22	2.60	1.91	2.02	7.75	7.38	1.50	.77	.73	51.21
	Izu	15.59	4.06	.67	20.32	1.76	3.24	2.49	2.32	9.81	10.51	1.41	.68	.73	48.27
	Koyatozan	16.91	5.33	1.21	23.45	1.55	7.74	3.48	2.98	15.75	7.70	.60	.40	.20	67.16
	Kozaka	4.77	16.04	.18	20.99	2.79	4.06	1.75	1.45	10.05	10.94	2.18	1.05	1.13	47.90
	Chiba (prefectural management)	4.27	1.95	.95	7.17	1.70	3.61	3.85	.30	9.46	*loss* 2.29	.72	.95	*loss* .23	131.91
	Shimabara	5.17	.33	5.42	10.92	2.12	3.80	3.24	.54	9.70	1.22	.88	.78	.10	88.84
	Uonuma	6.51	1.17	.26	7.94	1.91	2.14	1.63	1.65	7.33	.61	.54	.50	.04	92.35
	Nishio	11.76	.16	.11	12.03	1.29	2.29	1.26	4.68	9.52	2.51	.60	.48	.12	79.11
	Kamaishi coal mine line (private management)	1.74	12.44	—	14.18	1.56	6.52	4.09	1.60	13.77	.41	.94	.82	.02	97.13
	Tosan	23.26	—	.51	23.67	2.63	{ .73 / 5.63 }	4.57	3.39	16.95	6.72	.92	.66	.26	71.61
	Hatsuse	20.04	—	.07	20.11	1.40	5.96	2.14	4.54	14.04	6.07	2.51	1.75	.76	69.81
	Total	11.17	5.03	.99	17.19	1.68	3.91	2.59	2.02	10.20	6.99	.97	.58	.39	59.35
Grand total		17.53	6.89	1.36	25.78	2.00	4.63	3.11	2.84	12.58	13.20	1.31	.64	.67	48.80
Inc. or dec. ( ) against preceding year		.38	.79	△ .07	1.10	△ .12	.26	.32	.20	.66	.44	△ .01	—	△ .01	.50

9.—NUMBER AND SALARIES OF DIRECTORS AND STAFF.

	Name of Co.	Director		General affairs		Construction and maintenance of way		Locomotive		Transportation		Accounts and Stores		Total	
		Number	Monthly salary	Number	Monthly salary	Number	Monthly salary	Number	Monthly salary	Number	Monthly salary	Number	Monthly salary	Number	Monthly salary
			yen		*yen*		*yen*		*yen*		*yen*		*yen*		*yen*
Private	Narita	7	417	17	292				235	2,933		—	—	259	3,642
	Chuetsu	7	—	3	82	72	762	56	881	55	645	9	143	202	2,513
	Nankai	9	655	19	588	221	3,426	326	6,583	470	6,770	30	724	1,075	18,746
	Chugoku	10	367	—	—	104	1,629		202	2,584		—	—	316	4,580
	Tobu	9	521	30	497	208	2,275	175	2,578	254	3,252	—	—	676	9,273
	Hakatawan	5	—	4	255		77	1,260		74	963	4	114	164	2,592
	Ashio	9	501	37	1,056	101	2,499	21	415	17	337	—	—	185	4,808
	Total	—	—	—	—	—	—	—	—	—	—	—	—	2,877	46,154
Light	Iyo	7	155	3	40	63	834	79	1,201	190	2,268	8	158	350	4,656
	Sano	7	61	5	73	20	178	13	146	23	218	—	—	68	676
	Ome	7	100	4	71	19	258	26	389	43	543	—	—	99	1,361
	Kawagoe	8	96			112			1,485			—	—	120	1,581
	Kozuke	7	70	4	66	26	273	24	365	31	344	—	—	92	1,118
	Toyokawa	7	167	4	151			110		1,639		4	89	125	2,046
	Bisai	9	115	6	113			101		1,274		—	—	116	1,502
	Omi	6	155	1	21			147		1,737		3	81	157	1,994
	Kanan	5	190	3	42	17	209	27	441	38	500	4	66	94	1,448
	Ryugasaki	8	8	2	28	2	19	2	21	5	42	—	—	19	118
	Jobu	8	—	5	76			102		1,449		—	—	115	1,525
	Mito	6	25	6	166	18	245	20	309	26	323	—	—	76	1,068
	Izu	5	—	7	156	26	313		49	696		3	71	90	1,236
	Koyatozan	10	188	10	198	29	729		175	2,261		6	128	230	3,564
	Kosaka	5	—				108			1,972				113	1,972
	Chiba (prefectural management)	1	—	1 / 7	— / 99	12	142	20	294	55	757	—	—	96	1,292
	Shimabara	12	163	9	144	47	906	17	241	29	315	9	166	123	1,935
	Uouma	7	167	2	41		47		600			2	33	58	841
	Nishio	7	67	7	62	22	272	14	201	25	261	—	—	75	863
	Kamaishi coal mine line (private management)	—	—	—	—	37	1,031	9	394	61	1,712	—	—	107	3,137
	Tosan	5	100	7	170	36	563	29	515	45	501	4	90	126	1,939
	Hatsuse	6	—	—	—	9	102	17	264	17	270	—	—	49	636
	Total	—	—	—	—	—	—	—	—	—	—	—	—	2,498	36,448
Grand total		—	—	—	—	—	—	—	—	—	—	—	—	5,375	82,602
Inc. or dec. (△) against preceding year		—	—	—	—	—	—	—	—	—	—	—	—	709	15,187

TRAMWAYS.

(Returns for the Year Ending March 31st, 1911).

GENERAL RESUME.

The Japanese tramways date back from 1880, when in February an application was tendered for the construction of the Tokyo Horse Tram Co.'s line. The application was sanctioned, and the line was completed and opened for traffic in June, 1883. This was soon followed by others in rapid succession, and especially since 1888 every year witnessed the application for four or five horse tramway undertakings. The result was the promulgation of the Tramway Regulations by Law No. 71 on August 23rd, 1891, by virtue of which horse tramways and similar means of transportation to be laid on public roads for general traffic came to be authorised subject to the special sanction of the Minister of Home Affairs. On October 22nd, 1908 it was further provided by Imperial Ordinance No. 266 that applicants for the construction of tramways on the Tramway Orders should also obtain the sanction of the Minister of Communications, whereupon the control of the tramways as to their construction and working came in the charge of the Imperial Government Railways.

At the end of the fiscal year 1910 there were 145 tramways representing 1,778 miles of tracks, of which 92 tramways with 819.5 miles (exclusive of 377 miles under construction) were opened for traffic and 53 tramways with 581.5 miles have not yet opened their business. Classified further by motive powers used for traction, it is noted that 347.3 miles (exclusive of 271.5 miles in course of electrification) were represented by 35 electric tram undertakings, 115.5 miles (exclusive of 80 miles under construction) by 4 steam engine, 3.4 miles (exclusive of 3.4 miles under construction). by one petroleum motor, 70.8 miles (exclusive of 1.9 miles under construction) by 13 *rikisha*, and 262 5 miles (exclusive of 20.1 miles) by 38 horse tram. Of the tramways not yet open to traffic, 400.4 miles are represented by 28 electric tram undertakings, 70.4 miles by 7 steam engine, 1.6 miles by one gas motor, 11.9 miles by 3 *rikisha*, and 97.2 miles by 14 horse tram.

The following are the results of the working of tramways at the end of the business year or within the same year:—

There were 93 tramways in operation with an aggregate mileage of 838.8 miles, of which 367.4 miles were represented by 36 electric tramways, 110.8 miles by 4 steam engine, 23.9 miles by one petroleum motor, 3.4 miles by one steam motor, 70.8 miles by 13 *rikisha*, 262.5 miles by 38 horse tram.

The amount of share capital (inclusive of capital funds for municipal or private undertakings as well as capital funds allocated for additional undertakings) totalled ¥142,945,110 and the paid up capital ¥100,815,550, of which ¥133,292,773 (with ¥94,733,270 paid up) were represented by electric tramways, ¥5,385,000 (with ¥2,870,967 paid up) by steam engine, ¥1,000,000 (with ¥625,000 paid up) by petroleum motor ¥250,000 with ¥152,500 paid up) by steam motor, ¥625,963 (with ¥524,638 paid up) by *rikisha*, ¥2,391,375 (with ¥1,909,175 paid up) by horse tram.

The aggregate cost of construction (inclusive of that pertaining to the additional undertakings) were ¥96,528,830 for the electric tramways, ¥3,105,740 for the steam engine, ¥579,905 for the petroleum motor, ¥259,450 for the steam motor, ¥597,158 for the *rikisha* and ¥2,167,862 for the horse tramways, making a total of ¥103,238,945.

The rolling stock returns comprised 121 steam or petroleum locomotive engines, 2,860 passenger carriages (of which 2,263 were hauled by electricity, steam engines or motors and 597 by horse or human power), 1,411 goods wagons (of which 290 were hauled by electricity or steam engines and 1,121 by horse or human power).

The number of mileage travelled by passenger cars were 61,239,562 miles, of which 57,711,389 miles were represented by electric steam or petroleum engines and motors, and 3,528,173 miles by horse trams or *rikisha*.

The number of mileage covered by goods wagons were 3,907,903 miles, of which 763,297 miles were represented by electric, steam and petroleum engines, and 763,297 miles by horse trams or *rikisha*.

The number of passengers carried were 367,504,173 with a total sum of receipts of ¥14,821,913 accruable therefrom, of which 359,051,873 representing ¥14,262,272 came from electric, steam engine tram and motor service, and 8,452,300 representing ¥559,641 from horse tram and *rikisha* service.

The weight of goods (inclusive of parcels) hauled were 848,379 tons, with a total sum of receipts of ¥431,086 accruable therefrom, of which 213,847 tons representing ¥114,824 came from electric and steam engine tram service, and 634,532 tons representing, ¥316,262 from horse tram and *rikisha* service.

The gross receipts from operation (inclusive of those from the additional undertakings) aggregated ¥18,593,496 and the expenditure ¥9,994,582, leaving a net profit of ¥8,598,914, which are made up as follows:—

	Gross receipts	Expenditure	Net profit
	yen	*yen*	*yen*
Electric, steam engine & motor service ...	17,622,889	9,177,757	8,445,142
Rikisha & horse tram service	97,597	816,825	153,772

Details are tabulated below:—

TABLE NO. I.

GENERAL BALANCE SHEET.

CAPITAL ASSETS.

Kind of Tramways \ Item	Share capital unpaid	Cost of costruction	Stores	Temporary payments	Account receivable	Negotiable bonds	Deposits	Cash	Security	Miscellaneous	Total
	yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
Electric	38,559,503	96,528,820	2,478,211	2,477,163	403,921	1,325,142	11,844,417	578,877	3,191	2,510,655	157,709,910
Steam Engine	2,514,033	3,105,740	110,982	151,359	932	31,858	183,016	722	1,377	146,194	6,246,213
Petroleum Motor	375,000	579,905	16,881	31,183	666	1,850	38,120	125,957	—	—	1,169,541
Steam Motor	97,500	259,450	473	818	342	—	1,460	103	—	—	360,146
Rikisha	101,325	597,158	6,871	4,632	30,275	7,127	12,125	15,150	1,000	216,614	992,277
Horse Tram	482,200	2,167,862	57,413	16,849	5,873	7,720	89,965	21,023	1,202	194,240	3,044,347
Grand total	42,129,561	103,238,945	3,670,831	2,682,004	442,009	1,373,697	1,169,103	741,812	6,770	3,067,703	169,522,435

CAPITAL LIABILITIES.

Kind of Tramways \ Item	Share capital	Capital by debentures & loans	Legal reserves	Special reserves	Securities	Temporary receipts	Accounts payable	Account of dividends payable	Brought forward from the last half-year' account	Profit for the latter half-year	Miscellaneous	Total
	yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
Electric	133,292,773	14,628,617	1,656,885	1,896,716	198,885	451,564	685,626	43,861	337,981	3,158,247	1,358,755	157,709,910
Steam Engine	5,385,000	654,037	18,977	8,788	10,297	1,255	86,843	1,301	6,963	70,307	2,445	6,246,213
Petroleum Motor	1,000,000	27,000	15,011	23,109	1,867	—	3,771	—	2,290	96,394	—	1,169,542
Steam Motor	250,000	100,570	500	432	—	—	136	2,149	—	5,404	955	360,146
Rikisha	625,963	260,608	26,109	—	—	158	4,774	176	9,288	24,998	29,642	992,277
Horse Tram	2,391,375	305,815	56,863	19,342	1,853	34,685	9,947	3,534	16,766	66,094	138,073	3,044,347
Grand total	142,945,111	15,976,647	1,774,345	1,958,948	212,902	487,662	791,097	51,021	373,288	3,421,544	1,529,870	169,522,435

TABLE NO. II.

ANALYSIS OF CONSTRUCTION EXPENSES.

Kind of Tramways	Item	Permanent way	Power cables	Rolling stock	Generating stations, etc.	Car sheds	Offices, etc.	Agencies, stations, etc.	Cost of conveyance	Tools, machineries	General expenses	Total
		yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
Electric		43,306,370	9,304,918	12,582,541	15,187,368	—	45,581	—	215,912	526,505	5,729,707	93,286,002
Steam Engine		1,758,934	15,694	468,651	100,073	—	108,949	—	32,214	28,932	563,073	3,076,460
Petroleum Motor		339,989	816	145,676	—	11,414	1,801	60,567	—	—	19,642	579,905
Steam Motor		157,287	634	49,702	—	—	4,812	—	—	3,461	43,554	259,450

TABLE NO. III.

RETURN OF ROLLING STOCK.

Kind of Tramways	Item	Passenger cars					Goods wagons					
		Loco.	No.	Aggregate seating capacity	Average seating capacity	No. of cars per mile open	Box	Open	Total	Aggregate loading capacity	Average loading capacity	No. of wagons per mile open
Electric	In operation	—	1,536	69,220	44.6	5.8	29	69	98	495.0	5.0	1.0
	Others	3	614	26,666			13	19	32	156.0		
	Total	3	2,150	95,886			42	88	130	651.0		
Steam Engine	In operation	55	56	1,866	33.9	.8	26	57	83	291.5	3.0	1.0
	Others	16	28	985			7	10	17	64.2		
	Total	71	84	2,851			33	67	100	355.7		
Petroleum Motor	In operation	40	21	630	28.7	1.0	2	43	45	112.0	2.0	2.5
	Others	7	4	87			3	12	15	45.0		
	Total	47	25	717			5	55	60	157.0		
Steam Motor	In operation		4	280	70.0	1.2	—	—	—	—	—	—
	Others	—	—	—								
	Total		4	280								

TABLE NO. IV.

RESULTS OF THE WORKING OF PASSENGER CARS.

Kind of Tramways	Item	Average open mileage	Average No. of days opened for service	No. of cars in service	No. of trips made by cars	Car mileage	Average No. of cars in service per day	Average No. of trips made by cars per day	Average car mileage per day	Average No. of trips per day per car	Average car mileage per day per car
		mile				*mile*					*mile*
Electric		327.97	324	496,890	6,774,424	56,209,721	1,533.6	20,908.7	173,486.8	13.6	113.1
Steam Engine		96.68	319	17,329	158,158	962,668	54.3	495.8	3,017.8	9.1	55.6
Petroleum Motor		19.97	305	6,781	49,574	484,368	22.2	162.5	1,588.1	7.3	71.4
Steam Motor		3.39	365	764	15,613	54,641	2.1	42.8	149.7	20.4	71.5

TABLE NO. V.

RESULTS OF THE WORKING OF GOODS WAGONS.

Kind of Tramways \ Item	Average open mileage	Average No. of days opened for service	No. of wagons in service	No. of trips made by wagons	Car mileage	Average No. of wagons in service per day	Average No. of wagons in service per day	Average car mileage per day	Average No. of trips per day per wagon	Average car mileage per day per wagon
	mile	*yen*	*yen*	*yen*	*mile*					*mile*
Electric	100.73	294	24,072	64,640	440,640	81.9	219.9	1,498.8	2.7	18.3
Steam Engine	77.22	285	14,723	22,479	187,489	51.7	78.9	657.9	1.5	12.7
Petroleum Motor	19.92	304	7,034	1,398	135,168	23.1	34.2	444.6	1.5	19.2

TABLE NO. VI.

RESULTS OF PASSENGER TRAFFIC.

Kind of Tramways \ Item	Passenger carried			Earnings			Average amount of earning per pass.	Average No. of pass. per day	Average amount of earnings per pass.	Average amount of earnings per day per mile	Average car mileage per day per car
	Ordinary	Others	Total	Ordinary	Others	Total					
				yen	*yen*	*yen*			*yen*	*yen*	*yen*
Electric	207,918,833	146,278,521	354,197,354	9,777,934	4,016,199	13,794,133	389	1,093.202	42,574.48	115.23	.245
Steam Engine	2,740,080	326,212	3,066,292	310,189	20,468	330,657	1,078	9,612	1,036.54	9.37	.343
Petroleum Motor	1,204,967	319,435	1,524,402	105,283	6,245	111,528	732	4,998	365.67	15.30	.230
Steam Motor	194,697	69,128	263,825	20,527	5,427	25,954	984	723	71.11	20.98	.475

N. B.—Under the heading of "Others" is given the total sum of fares realised by discount, commutation and season tickets as well as party trip and reserved car fares.

TABLE NO. VII.

RESULTS OF GOODS TRAFFIC.

Kind of Tramways \ Item	Goods carried			Earnings			Average rate per ton of goods	Average tonnage of goods per day	Average amount of rates per day	Average receipts per day per mile	Car mileage per day per mile
	Ordinary	Car-load	Total	Ordinary	Car-load	Total					
	ton	*ton*	*ton*	*yen*	*yen*	*yen*	*yen*	*ton*	*yen*	*yen*	*yen*
Electric	68,464 * 118,355	77,918	146,382 * 351,428	46,505	21,045	67,550	?	?	229.76	1.96	.164
Steam Engine	22,715 * 25,128	24,132	46,847 * 102,602	15,312 1,725	12,478	27,792 * 1,725	?	?	97.52	1.05	.157
Petroleum Motor	20,612	—	20,612	13,136	—	13,136	.637	68	43.21	1.81	.097

TABLE NO. VIII.

RECEIPTS AND EXPENDITURES.

Kind of Tramways \ Item	Receipts				Expenditures							Balance (profit)
	Passenger	Goods	Others	Total	Maintenace of way	Motive power	Traffic	General	Taxes & dues	Others	Total	
	yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
Electric	13,794,133	72,170	409,808	4,276,111	1,368,871	1,637,904	2,574,975	890,405	929,270	24,100	7,425,525	6,850,586
Steam Engine	329,566	29,709	9,959	369,234	20,442	84,497	49,510	48,839	15,578	—	218,866	150,368
Petroleum Motor	111,528	13,136	5,689	130,353	23,147	11,043	33,156	10,630	7,414	—	85,390	44,963
Steam Motor	25,954	—	638	26,592	414	2,691	17,364	—	—	-	20,469	6,123

RECEIPTS AND EXPENDITURES—*Continued.*

Kind of Tramways \ Item	Miscellaneous receipts			Miscellaneous Expenses			Net profit	Brought over from the last account	Profit disposed					Carried forward to next account
	Electric lighting & power supply	Interest, etc.	Total	Electric lighting & power expenses	Interest, charges, etc.	Total			Reserve	Bonus	Dividend		Others	
											Amount	Percentage		
	yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	%	*yen*	*yen*
Electric	1,296,211	1,461,501	2,757,712	360,778	1,049,193	1,409,971	8,198,327	495,937	1,396,543	219,556	720,359	—	947,400	410,406
Steam Engine	—	6,978	6,978	—	13,148	13,148	144,198	7,665	8,650	4,396	117,708	—	1,518	19,591
Petroleum Motor	—	△ 53,199	55,919	—	4,388	4,388	96,494	2,289	9,463	1,382	40,830	.080	× 43,000	4,108
Steam Motor	—	—	—	—	—	—	6,123	3,281	600	500	6,814	.055	—	1,490

N.B.—Figures indicated by (△) represent a premium on new shares, while those indicated by (×) represent the redemption of fixed capital.

RECEIPTS AND EXPENDITURES—*Continued.*

Kind of Tramways \ Item	Expenditure per 100 yen of receipts	Average receipts & expenditure per day			Average receipts & expenditure per mile			Average receipts & expenditure per day per mile			Average receipts & expenditure per car mile		
		Receipts	Expenditure	Profit	Receipts	Expenditure	Profit	Receipts	Expenditure	Profit	Receipts	Expenditure	Profit
	yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
Electric	51.87	—	—	—	43,528.71	22,640.87	20,887.84	119.25	62.03	57.22	.252	.131	.121
Steam Engine...	61.67	—	—	—	3,819.14	2,263.82	1,555.32	10.46	6.20	4.26	.321	.190	.131
Petroleum Motor	48.20	510.34	245.97	264.37	6,527.44	4,275.91	2,251.53	17.88	2.71	6.17	.211	.138	.073
Steam Motor	76.97	72.86	56.08	16.78	7,844.25	6,038.05	1,806.20	21.50	16.55	4.95	.487	.375	.112

APPENDICES

APPENDICES

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PROGRESS OF STATE RAILWAYS.

Permanent way

Year	Rails							Aggregate length of tracks	Stations	No. of stations per 10 miles of tracks
	Traffic mileage	Average traffic mileage	Single	Double	Triple	Quadruple	Total			
	m.	*m.*	*m.c.*	*m.c.*	*m.c.*	*m.c.*	*m.c.*	*m.c.*	*place*	*place*
1886	208.8	195.0	189.61	19.03	—	—	208.64	—	57	2.7
1887	244.5	235.7	225.37	19.03	—	—	244.40	—	64	2.6
1888	445.2	335.3	426.16	19.03	—	—	445.19	—	97	2.2
1889	550.6	534.0	509.41	41.08	—	—	550.49	—	113	2.1
1890	550.6	550.6	509.41	41.08	—	—	550.49	—	115	2.1
1891	550.6	550.6	509.41	41.08	—	—	550.49	—	117	2.1
1892	550.6	550.6	509.41	41.08	—	—	550.49	—	117	2.1
1893	557.6	557.6	516.41	41.08	—	—	557.49	698.27	117	2.1
1894	580.9	565.3	529.57	51.12	—	—	580.69	757.47	122	2.1
1895	593.3	586.4	532.70	60.32	—	—	593.22	792.18	127	2.1
1896	631.8	620.7	545.26	86.36	—	—	531.62	870.64	134	2.1
1897	661.8	647.7	575.29	86.36	—	—	661.65	910.17	139	2.1
1898	718.1	691.7	583.07	134.79	—	—	718.06	1,009.43	151	2.1
1899	749.3	747.9	593.13	156.11	—	—	749.24	1,082.75	163	2.2
1900	823.4	801.4	639.69	180.42	3.04	—	823.35	1,197.41	176	2.1
1901	905.4	873.9	678.71	223.34	3.04	—	905.29	1,344.53	192	2.1
1902	1,062.6	976.9	810.79	248.34	3.04	—	1,062.37	1,555.05	227	2.1
1903	1,146.0	1,104.4	868.45	274.26	3.04	—	1,145.75	1,688.74	250	2.2
1904	1,211.0	1,174.9	925.02	282.66	3.04	—	1,210.72	1,785.12	263	2.2
1905	1,469.9	1,470.4	1,209.28	287.22	3.04	—	1,499.54	2,121.65	315	2.1
1906	3,093.2	2,150.2	2,701.08	385.64	3.64	1.33	3,092.09	4,319.42	722	2.3
1907	4,444.8	3,982.3	3,984.36	454.39	3.64	1.33	4,444.12	6,155.79	1,153	2.6
1908	4,542.9	4,512.8	3,981.28	555.63	3.64	1.33	4,542.28	6,432.50	1,175	2.6
1909	4,624.4	4,580.2	3,994.28	624.16	.40	4.57	4,623.61	6,624.58	1,212	2.6
1910	4,870.3	4,767.3	4,213.37	651.02	.40	4.57	4,869.56	7,052.61	1,288	2.6
1911	5,044.1	4,950.3	4,358.55	679.28	.40	4.57	5,043.20	7,474.27	1,389	2.8

N.B.—The returns of the above table do not include the railway in Chosen, Formosa, South Manchuria and Karafuto (Sagalien), and also private railways except the line leased from the Yokohama Railway Co. which is included in the returns of since 1910.

PROGRESS OF STATE RAILWAYS.—*Continued.*

Traffic

Year	Train mileage.				Average number of trains per day	Car mileage			Running mileage per car per day (pass. cars)	Running mileage per day (goods wagons)
	Pass. trains	Goods trains	Mixed trains	Total		Pass. car	Goods wagons	Total		
						m.	*m.*	*m.*	*m.*	*m.*
1886	—	—	—	—	—	—	—	—	—	—
1887	—	—	—	—	—	—	—	—	—	—
1888	—	—	—	—	—	—	—	—	—	—
1889	—	—	—	—	—	—	—	—	—	—
1890	1,895,774	613,475	411,022	2,920,271	14.5	25,256.463	11,290,108	36,546,571	—	—
1891	2,067,522	713,035	521,743	3,302,300	16.4	26,721,762	13,959,506	40,681,268	109.4	24.1
1892	2,027,328	868,184	640,757	3,536,269	17.6	27,114,262	18,532,054	45,646,316	107.0	29.5
1893	2,016,170	896,447	815,320	3,777,937	18.3	28,768,067	20,246,395	49,014,462	109.7	35.8
1894	2,083,795	1,088,655	1,002,188	4,174,638	20.2	32,105,223	23,937,259	56,042,482	118.8	38.9
1895	2,379,842	1,201 894	749,273	4,331,009	20.2	36,430,289	26,480,420	62,910,709	127.5	40.3
1896	2,336,097	1,283,151	1,187,448	4,806,696	21.2	40,738,974	24,586,784	65,325,758	125.1	33.3
1897	2,179,423	1,455,659	1,723,027	5,358,109	22.7	43.428,576	31,423,699	74,852,275	130.5	36.0
1898	2,485,388	1,878,370	2,132,503	6,496,351	25.7	49,570,516	38,966,603	88,537,119	137.6	40.1
1899	2,511,050	2,107,590	2,516,708	7,135,348	26.1	50,754,499	52,530,745	103,285,244	129.3	53.1
1900	2,742,301	2,616,617	2,517,987	7,879,905	26.9	55,042,929	63,291,330	118,334,259	131.4	54.1
1901	2,699,042	2,391,520	7,883,973	7,979,535	25.0	57,557,094	63,019,304	120,576,398	127.5	49.0
1902	2,883,261	2,452,584	3,094,347	8,430,192	23.6	61,742,311	69,055,106	130,797,417	125.5	42.0
1903	3,462,288	2,851,775	3,416,604	9,730,667	24.1	70,567,027	77,714,472	148,281,499	126.5	40.7
1904	2,447,212	2,110,066	3,543,471	9,100,749	21.2	61,126,811	85,066,933	146,193,744	102.4	51.3
1905	2,530,128	2,787,045	4,393,091	10,710,264	20.0	68,017,379	108,578,253	176,595,632	105.4	58.2
1906	5,643,474	7,324,632	5,992,371	18,960,477	24.2	109,796,145	201,877,638	311,673,783	110.7	44.5
1907	12,001.780	14,101,480	11,457,928	37,561,188	25.8	221,687,230	413,775,971	635,463,201	135.0	43.1
1908	14,073,162	16,899,070	12,450,735	43,422,967	26.4	253,762,068	518,082,833	771,844,901	133.8	47.8
1909	14,283,152	15,455,959	12,696,717	42,435,828	25.4	255,051,199	515,180,547	770,231,746	127.6	48.0
1910	15,660,056	16,394.111	12,716,551	44,770,718	25.7	270,219,524	561,736,521	831,956,045	128.4	49·7
1911	17,594,094	18,408,601	12,728,089	48,730,784	26.9	291,880,707	607,749,146	899,629,853	111.3	46.1

N.B.—In the train mileage since 1906 is included the number of miles travelled by electric cars and steam motor cars at the rate of 10 cars=1 train.

The number of miles travelled by electric cars are 414,520 for 1906, 819,327 for 1907, 1,021,137 for 1908, 1,442,347 for 1909, 3,256.659 for 1910, 3,818,820 for 1911, while that of steam metor cars are 32,857 for 1909, 33,011 for 1910 and 147,667 for 1911.

In the mileage of passenger cars are included the mileage of electric cars and steam motor cars as returned since 1906.

PROGRESS OF STATE RAILWAYS.—*Continued.*

Year	Traffic — Passengers																
	No. of passenger				No. of pass. carried one mile				Average mileage per passenger				Rate per every 1000 of passengers			Average No. of pass. per car per mile	Average No. of travels per capita
	1st cl.	2nd cl.	3rd cl.	Total	1st cl.	2nd cl.	3rd cl.	Total									
1886	—	—	—	3,761,473	—	—	—	—	—	—	—	—	—	—	—	—	.31
1887	—	—	—	5,919,383	—	—	—	—	—	—	—	—	—	—	—	—	.47
1888	—	—	—	8,404,776	—	—	—	—	—	—	—	—	—	—	—	—	.63
1889	—	—	—	11,365,937	—	—	—	—	—	—	—	—	—	—	—	—	.82
1890	—	—	—	11,265,383	—	—	—	284,831,381	—	—	—	25.3	—	—	—	11.28	.74
1891	—	—	—	11,787,913	—	—	—	270,063,493	—	—	—	22.9	—	—	—	10.11	.77
1892	—	—	—	12,873,547	—	—	—	298,858,693	—	—	—	23.2	—	—	—	11.02	.84
1893	80,731	739,813	13,623,783	14,444,327	3,145,387	22,366,736	316,115,212	341,627,335	39.0	30.2	23.2	23.7	6	51	943	11.88	.93
1894	86,550	785,074	14,012,362	14,883,986	3,556,639	25,266,614	474,713,535	403,536,788	41.1	32.2	26.7	27.1	6	53	941	12.57	.94
1895	128,437	1,142,306	17,493,644	18,764,387	5,437,247	37,450,124	480,157,208	523,044,579	42.3	32.8	27.4	27.9	7	61	932	14.36	1.17
1896	152,288	1,452,290	21,146,171	22,750,749	6,022,848	41,822,615	488,079,940	535,925,403	39.5	28.8	23.1	23.6	7	64	929	13.16	1.45
1897	193,038	1,826,986	25,902,553	27,922,577	6,943,791	49,604,301	566,787,835	623,335,927	36.0	27.2	21.9	22.3	7	65	298	14.35	1.65
1898	223,657	2,010,511	29,215,371	31,449,539	7,609,335	52,387,027	612,572,345	673,068,707	34.0	26.3	21.0	21.4	7	64	298	13.58	1.76
1899	197,576	1,992,779	26,117,963	28,308,318	7,282,259	57,755,732	564,509,720	629,547,711	36.9	29.0	21.6	22.2	7	70	923	12.40	1.34
1900	204,803	2,259,768	28,995,374	31,459,645	8,370,432	66,425,529	631,610,735	706,406,696	40.9	29.4	21.8	22.5	6	72	922	12.83	1.52
1901	195,460	2,091,526	29,309,415	31,596,401	8,947,468	64,495,881	643,515,674	716,959,023	45.8	30.8	22.0	22.7	6	66	928	12.46	1.41
1902	207,905	2,023,665	29,170,092	31,401,662	9,534,171	66,551,048	647,126,290	723,211,509	45.9	32.9	22.2	23.0	7	64	929	11.71	1.36
1903	229,321	2,105,747	31,143,127	33,478,195	10,870,151	79,581,450	719,975,039	810,426,640	47.4	37.8	23.1	24.2	7	63	930	11.48	1.26
1904	172,501	1,657,158	26,387,534	28,217,193	8,558,821	69,436,687	732,022,097	810,017,605	49.6	41.9	27.7	28.7	6	59	935	13.25	1.10
1905	221,649	1,990,154	28,815,161	31,026,964	12,753,306	93,050,154	839,263,364	945,066,824	67.5	46.8	29.1	30.5	7	64	929	13.89	1.21
1906	274,920	2,845,902	44,446,098	47,566,920	16,430,329	126,232,526	1,082,073,966	1,224,736,821	56.8	44.4	24.3	25.7	6	60	934	11.15	1.29
1907	365,345	5,131,893	95,618,501	101,115,739	24,045,697	219,497,987	2,109,727,081	2,353,270,765	65.8	42.8	22.1	23.3	3	51	946	10.62	2.21
1908	396,449	6,257,064	116,574,030	123,227,543	26,131,252	263,721,910	2,453,350,696	2,743,203,558	65.9	42.1	21.0	22.3	3	51	946	10.81	2.64
1909	410,707	6,327,549	121,568,704	128,306,960	27,971,459	273,212,346	2,511,145,303	2,812,329,108	68.1	43.2	20.7	21.9	3	49	948	11.03	2.72
1910	422,925	6,500,601	131,706,180	138,629,706	29,454,126	297,285,823	2,711,997,017	3,038,736,966	69.6	45.7	20.6	21.9	3	47	950	11.25	2.91
1911	444,102	7,068,115	143,565,562	151,077,779	31,779,624	334,521,041	3,016,285,746	3,382,586,411	71.6	47.3	21.0	22.4	3	47	950	11.59	3.09

N.B.—The average number of travels per capita of the population is computed on the actual number of inhabitants in the prefectures traversed by the State lines open to traffic.

Year	Traffic																	
	Goods																	
	Parcels & luggage			Tonnage of goods				Aggregate tonnage of goods hauled one mile				Average mileage of ton				Average tonnage per wagon	Average tonnage of goods per capita
	Average tonnage of parcels	Average tonnage of luggage	Total	Ordinary	Express	Carload	Total	Ordinary	Express	Carload	Total	Ordinary	Express	Carload	Total		
	ton	*ton*	*ton*	*ton*	*ton*	*ton*	*ton*	*ton*	*ton*	*ton*	*ton*	*m.*	*m.*	*m.*	*m.*	*m.*	
1886	—	—	—	—	—	—	419,707	—	—	—	—	—	—	—	—	—	.03
1887	—	—	—	—	—	—	569,232	—	—	—	—	—	—	—	—	—	.05
1888	—	—	—	—	—	—	699,154	—	—	—	—	—	—	—	—	—	.05
1889	—	—	—	—	—	—	616,892	—	—	—	—	—	—	—	—	—	.04
1890	—	—	4,006	—	—	—	671,361	—	—	—	25,744,580	—	—	—	38.3	2.2	.04
1891	—	—	4,690	—	—	—	806,511	—	—	—	30,456,870	—	—	—	37.8	2.2	.05
1892	—	—	5,487	—	—	—	982,404	—	—	—	44,827,316	—	—	—	45.6	2.4	.06
1893	—	—	5,188	—	—	—	1,076,689	—	—	—	54,432,438	—	—	—	50.6	2.7	.07
1894	—	—	7,431	250,633	—	767,665	1,018,298	10,463,059	—	61,870,945	72,354,004	41.7	—	80.6	71.0	3.0	.06
1895	—	—	8,086	302,714	—	797,345	1,100,059	12,712,572	—	64,110,514	76,823,086	42.0	—	80.4	69.8	2.9	.07
1896	—	—	10,720	239,779	—	1,026,340	1,266,119	9,266,149	—	65,068,670	74,334,819	38.6	—	63.4	58.7	3.0	.08
1897	—	—	15,064	260,761	—	1,297,433	1,558,194	9,832,599	—	89,648,278	99,486,877	37.7	—	69.1	63.8	3.2	.09
1898	—	—	16,130	285,642	2,236	1,477,581	1,765,459	11,324,864	639,733	120,530,900	132,495,497	39.6	286.1	81.6	75.0	3.4	.10
1899	—	—	19,050	390,103	4,982	1,910,939	2,306,024	13,244,941	1,198,128	160,863,653	175,309,722	34.0	240.5	84.2	76.0	3.3	.11
1900	—	—	21,898	433,378	6,908	2,201,737	2,642,023	14,730,303	1,633,572	203,615,766	219,979,641	34.0	236.5	92.5	83.3	3.5	.13
1901	14,653	2,071	16,724	323,652	11,440	2,181,049	2,516,141	13,182,332	2,579,463	195,832,835	211,594,630	40.7	225.5	89.8	84.1	3.4	.11
1902	14,106	2,011	16,117	336,262	15,118	2,620,350	2,971,730	13,557,195	3,448,510	224,277,362	241,283,097	40.3	228.1	85.6	812	3.5	.13
1903	15,824	2,403	18,227	345,162	14,482	2,885,022	3,244,666	14,125,914	3,333,644	258,063,225	275,522,813	40.9	230.2	89.4	84.9	3.5	.12
1904	20,546	2,425	22,971	359,950	11,404	2,955,594	3,326,948	19,665,001	2,734,595	310,444,485	332,844,084	54.6	239.8	105.0	100.0	3.5	.13
1905	24,674	3,750	28,424	480,558	24,323	3,893,613	4,403,494	25,219,040	5,410,911	367,059,762	397,689,713	52.5	222.5	94.2	90.3	3.7	.17
1906	30,448	4,672	35,120	882,349	25,853	6,712,326	7,620,528	61,789,035	6,378,986	645,346,334	713,514,355	70.0	246.7	96.1	93.6	3.5	.21
1907	47,940	7,076	55,016	1,920,933	30,450	16,360,790	18,312,223	153,695,717	8,144,427	1,279,284,867	1,441,125,013	80.0	267.5	78.2	78.7	3.5	.40
1908	55,661	8,358	64,019	2,270,392	28,349	21,225,818	23,524,559	190,760,274	7,806,657	1,630,862,227	1,829,429,158	84.0	275.4	76.8	77.8	3.5	.50
1909	58,585	9,749	68,334	2,335,753	27,197	21,292,670	23,655,620	202,980,717	7,391,377	1,700,825,346	1,911,197,440	86.9	271.8	79.9	80.8	3.7	.50
1910	65,420	9,447	74,867	2,579,606	27,789	22,874,473	25,481,868	234,195,572	7,623,992	1,885,014,909	2,126,834,473	90.8	274.4	82.4	83.5	3.8	.52
1911	74,631	10,586	85,217	2,811,202	26,644	26,499,208	29,337,054	260,506,546	7,357,152	2,080,077,777	2,347,871,475	92.7	276.1	78.5	80.0	3.9	.60

N. B.—The average tonnage of goods per capita of the population is computed on the actual number of inhabitants in the prefectures traversed by the State lines open to traffic.

PROGRESS OF STATE RAILWAYS.—*Continued.*

Year	Traffic																		
	Passenger Fares																		
	Fares				Average				Average				Cef every 1,000 *yen* of receipts			Parcels rates			Rate on postal matters
	1st cl.	2nd cl.	3rd cl.	Total	1st cl.	2nd cl.	3rd cl.	Total	1st cl.	2nd cl.	3rd cl.	Total	1st cl.	2nd cl.	3rd cl.	Parcels	Luggage	Total	
	yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
1890...	—	—	—	3,183,383	—	—	—	.283	—	—	—	.0112	—	—	—	—	—	97,911	31,651
1891...	—	—	—	3,026,869	—	—	—	.257	—	—	—	.0112	—	—	—	—	—	101,804	34,927
1892...	—	—	—	3,335,609	—	—	—	.259	—	—	—	.0112	—	—	—	—	—	126,497	35,322
1893...	—	—	—	3,791,501	—	—	—	.262	—	—	—	.0111	—	—	—	—	—	120,449	46,573
1894...	—	—	—	4,229,005	—	—	—	.234	—	—	—	.0105	—	—	—	—	—	179,685	54,067
1895...	—	—	—	5,656,410	—	—	—	.301	—	—	—	.0108	—	—	—	—	—	212,317	56,985
1896...	—	—	—	5.984,581	—	—	—	.263	—	—	—	.0112	—	—	—	—	—	269,738	74,528
1897...	—	—	—	7,003,795	—	—	—	.251	—	—	—	.0112	—	—	—	—	—	372,548	91,819
1898...	—	—	—	7,692,869	—	—	—	.245	—	—	—	.0114	—	—	—	—	—	375,223	111,184
1899...	—	—	—	9,313,140	—	—	—	.325	—	—	—	.0146	—	—	—	—	—	417,675	144,420
1900...	—	—	—	10,313,117	—	—	—	.328	—	—	—	.0146	—	—	—	—	—	447,117	169,406
1901...	353,612	1,454,161	8,684,333	10,492,106	1.809	.695	.296	.332	.0395	.0225	.0135	.0146	.034	.138	.828	314,753	88,967	403,720	196,586
1902...	391,381	1,625,516	9,348,849	11,365,746	1.882	.803	.320	.362	.0411	.0244	.0144	.0157	.034	.143	.823	323,246	82,569	405,815	226,922
1903...	436,886	1,908,565	10,084,584	12,430,035	1.905	.906	.324	.371	.0402	.0240	.0140	.0153	0.35	.154	.811	355,517	93,506	449,023	245,646
1904...	333,127	1,723,573	9,622,752	11,679,452	1.931	1.040	.365	.414	.0389	.0248	.0131	.0144	.028	.148	.824	431,713	87,178	518 891	249,013
1905...	513,474	2,122,470	10,881,689	13,517,633	2.317	1.066	.373	.436	.0403	.0228	.0130	.0143	.038	.157	.805	470,873	100,320	571,193	294,628
1906...	640,806	2,925,123	15,459,349	19,025,278	2.331	1.028	.348	.400	.0290	.0232	.0143	.0155	.034	.154	.812	754,855	149,843	904,698	449,873
1907...	864,939	4,602,695	29,646,132	35,113,766	2.367	.897	.310	.347	.0360	.0210	.0141	.0149	.025	.121	.844	1,238,378	244,349	1,482,727	829,105
1908...	849,416	5,007,936	33,230,610	39,087,962	2.143	.800	.285	.317	.0325	.0190	.0135	.0142	.022	.128	.850	1,380,853	285,694	1,666,547	948,024
1909...	872,912	5,065,207	33,432,413	39,370,532	2.125	.801	.275	.307	.0312	.0185	.0133	.0140	.022	.129	.849	1,630,511	282,332	1,912,843	974,773
1910...	949,446	5,645,563	35,549,987	42,144,996	2.245	.868	.270	.304	.0322	.0190	.0131	0.139	.023	.134	.843	1,881,122	308,205	2,189,327	980,379
1911...	1,016,166	6,323,073	39,527,075	46,866,314	2.288	.895	.275	.310	.0320	.0189	.0131	.0139	.022	.135	.843	2,159,464	375,368	2,534,832	1,006,562

Year	Traffic															
	Goods rates															
	Rates				Average rate per ton				Average rate per ton per mile				Terminal charges	Average terminal charges per ton	Average terminal charges per ton per mile	Shipping receipts
	Ordinary	Express	Carload	Total	Ordinary	Express	Carload	Total	Ordinary	Express	Carload	Total				
	yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
1886...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1887...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1988...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1889...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1890...	350,697	—	428,101	778,798	—	—	—	1.160	—	—	—	.0303	—	—	—	—
1891...	340,651	—	489,394	830,045	—	—	—	1.029	—	—	—	.0273	—	—	—	—
1892...	414,386	—	660,956	1,075,342	—	—	—	1.095	—	—	—	.0240	—	—	—	—
1893...	477,089	—	766,261	1,243,350	—	—	—	1.155	—	—	—	.0228	—	—	—	—
1894...	612,332	—	977,234	1,589,566	2.443	—	1.273	1.561	.0585	—	.0158	.0220	—	—	—	—
1895...	738,757	—	1,069,732	1,808,489	2.440	—	1.342	1.644	.0581	—	.0167	.0235	—	—	—	—
1896...	577,018	—	1,069,305	1,646,323	2.406	—	1.042	1.300	.0623	—	.0164	.0221	—	—	—	—
1897...	632,963	—	1,431,754	2,064,717	2.427	—	1.104	1.325	.0644	—	.0160	.0208	—	—	—	—
1898...	661,773	50,019	2,071,252	3,783,044	2.317	22.370	1.402	1.576	.0584	.0782	.0172	.0201	—	—	—	—
1899...	806,316	105,896	2,743,387	3,655,599	2.067	21.256	1.436	1.585	.0609	.0884	.0171	.0209	—	—	—	—
1900...	899,204	141,764	3,334,228	4,375,196	2.075	20.522	1.514	1.656	.0610	.0868	.0164	.0199	—	—	—	—
1901...	797,380	220,526	3,279,209	4,297,115	2.464	19.277	1.504	1.708	.0605	.0855	.0167	.0203	515,822	.206	.0025	—
1902...	834,792	278,727	3,778,192	4,891,711	2.483	18.437	1.442	1.646	.0616	.0808	.0168	.0203	604,881	.205	.0025	—
1903...	878,016	270,693	4,337,548	5,486,257	2.544	18.692	1.503	1.691	.0622	.0815	.0168	.0199	626,442	.194	.0023	—
1904...	1,093,764	207,048	5,212,194	6,513,006	3.039	18.156	1.763	1.958	.0556	.0757	.0168	.0196	602,375	.182	.0018	—
1905...	1,336,886	410,133	6,234,240	7,981,259	2.782	16.862	1.599	1.812	.0530	.0758	.0170	.0201	802,610	.183	.0020	—
1906...	2,510,872	494,879	9,546,380	12,552,131	2.846	19.142	1.422	1.647	.0406	.0776	.0148	.0176	1,631,873	.215	.0023	167,347
1907...	4,960,059	647,180	19,478,340	25,085,579	2.582	21.254	1.191	1.370	.0323	.0795	.0152	.0174	4,095,863	.224	.0029	835,547
1908...	5,992,950	623,643	23,805,430	30,422,023	2.640	21.999	1.122	1.293	.0314	.0799	.0146	.0166	5,147,562	.219	.0028	1,389,494
1909...	6,712,423	652,812	24,158,469	31,523,704	2.874	24.003	1.135	1.333	.0331	.0883	.0142	.0165	5,276,263	.223	.0028	1,571,029
1910...	7,660,772	676,827	26,641,096	34,978,695	2.970	24.356	1.165	1.373	.0327	.0888	.0141	.0164	5,779,619	.227	.0027	1,903,947
1911...	8,690,575	644,908	29,634,901	38,970,384	3.091	24.205	1.118	1.328	.0334	.0877	.0142	.0166	6,603,798	.225	.0028	2,099,298

N.B.—In computing the average terminal charges, the tonnage of goods of express consignment and the tonnage of the same hauled one mile are left out of calculation.

PROGRESS OF STATE RAILWAYS.—*Continued.*

Motive power and Rolling stock

Year	Locos					Passenger								Goods wagons						Ships	
	Tank	Tender.	Abt.	Total	No. of locos per 10 miles of tracks	Bogie	4-weel	Total	No. of pass. cars per 10 miles of tracks	No. of seats	No. of seats per car.	No. of pass. per seat	Average No. of seats per mile of tracks	Covered	Open	Others	Total	No. of wagons per 10 miles of tracks	Freight tonnage	Average weight of goods per one mile of tracks	No.	Gross tonnage
																			ton			
1886	39	18	—	57	2.7	9	275	284	13.6	—	—	—	—	437	322	—	759	36.4	—	—	—	—
1887	46	18	—	64	2.6	9	298	307	12.6	—	—	—	—	485	468	—	953	39.0	—	—	—	—
1888	60	18	—	78	1.8	13	385	398	8.9	—	—	—	—	552	484	—	1,036	23.3	—	—	—	—
1889	63	34	—	97	1.8	69	455	524	9.5	—	—	—	—	674	525	—	1,199	21.8	—	—	—	—
1890	81	36	—	117	2.1	69	465	534	9.7	—	—	—	—	742	529	—	1,271	23.1	—	—	—	—
1891	81	42	—	123	2.2	75	539	614	11.2	—	—	—	—	902	776	—	1,678	30.5	—	—	—	—
1892	87	42	4	133	2.4	75	562	637	11.6	—	—	—	—	960	786	—	1,746	31.7	—	—	—	—
1893	90	48	4	142	2.5	79	575	654	11.7	—	—	—	—	990	854	—	1,844	33.1	—	—	—	—
1894	90	64	4	197	2.9	79	606	685	11.8	—	—	—	—	1,099	1,004	2	2,105	36.2	—	—	—	—
1895	97	68	6	171	2.9	87	625	712	12.0	—	—	—	—	1,224	1,002	2	2,228	37.6	—	—	—	—
1896	99	78	6	183	2.9	87	716	803	12.7	—	—	—	—	1,265	1,054	2	2,321	37.8	—	—	—	—
1897	99	153	6	258	3.9	98	780	878	13.3	32,921	34	.42	50	1,459	1,416	2	2,877	43.5	19,754	30	—	—
1898	117	183	10	310	4.3	110	864	974	13.6	36,146	33	.41	50	1,638	1,547	2	3,187	44.4	21,231	30	—	—
1899	141	183	10	334	4.5	119	886	1,005	13.4	37,498	34	.36	50	1,803	1,797	2	3,602	48.1	24,477	33	—	—
1900	139	224	10	373	4.5	179	896	1,075	13.1	41,219	33	.39	50	2,237	1,847	2	4,086	49.6	27,483	33	—	—
1901	139	242	10	391	4.3	205	887	1,092	12.1	41,456	32	.39	46	2,508	2,315	2	4,825	53.3	32,843	36	—	—
1902	165	254	12	431	4.1	289	1,007	1,296	12.2	50,417	32	.37	47	2,825	2,465	2	5,292	49.8	35,995	34	—	—
1903	200	272	12	484	4.2	297	1,137	1,434	12.5	55,213	32	.36	48	3,126	2,665	2	5,793	50.5	38,295	33	—	—
1904	175	280	12	467	3.9	297	1,201	1,498	12.4	60,420	34	.39	50	3,150	2,734	2	5,880	48.6	43,086	36	—	—
1905	293	294	12	599	4.0	342	1,270	1,612	10.7	64,408	33	.42	43	5,240	3,149	9	8,398	56.0	55,893	37	—	—
1906	672	662	14	1,348	4.4	724	2,660	3,384	10.9	129,745	32	.35	42	10,065	10,087	13	20,165	65.2	142,463	46	12	4,407.10
1907	1,039	871	14	1,924	4.3	961	4,028	4,989	11.2	192,229	32	.33	43	14,120	18,094	28	32,242	72.5	230,894	52	22	9,975.85
1908	1,068	941	20	2,029	4.5	1,067	4,201	5,268	11.6	201,830	32	.34	44	14,330	18,210	28	32,568	71.7	235,732	52	24	12,794.85
1909	1,175	974	25	2,174	4.7	1,157	4,276	5,433	11.7	208,606	32	.34	45	14,528	19,109	28	33,665	72.8	246,682	53	27	16,128.06
1910	1,220	986	25	2,231	4.6	1,261	4,403	5,664	11.6	221,170	32	.35	45	15,277	19,431	42	34,760	71.4	258,270	53	28	16,356.32
1911	1,234	1,061	10	2,305	4.6	1,604	4,289	5,893	11.7	236,273	32	.36	47	16,568	21,342	42	37,952	75.2	292,498	58	28	19,571.30

N. B.—(1) The table includes the cars used on construction service; one bogie carriage is calculated as 2 ordinary cars and the average seating calculated accordingly.

(2) Under the columns of "Wagons, etc." tank-cars, gas holders, and tender-cars are included.

(3) The returns of ships includes the following charted vessels:—3 vessels with 1,515.29 tons for 1907, 4 vessels with 3,458.67 tons for 1908, 5 vessels with 6,711.01 tons for 1909, 4 vessels with 6,711.18 tons for 1910, and 5 vessels 9,939.94 tons for 1911.

PROGRESS OF STATE RAILWAYS.—*Continued.*

Transportation

Year	No. of engine houses	No. of engine houses per 100 mile of tracks	Loco. mileage	Car mileage converted	Coal consumed for operation	Oil consumed for operation	Amount of coal consumed for operation	Amount of oil consumed for operation
			m	*m.*	*kin*	*koku*	*kin*	*sho*
1886	11	5.3	—	—	—	—	—	—
1887...	11	4.5	—	—	—	—	—	—
1888...	18	4.0	—	—	—	—	—	—
1889...	19	3.5	—	—	—	—	—	—
1890...	18	3.3	—	—	—	—	—	—
1891...	18	3.3	—	—	—	—	—	—
1892...	20	3.6	3,958,059	—	88,541,429	1,334	2,237	3.4
1893...	20	3.6	4,126,128	—	97,356,776	1,340	2,360	3.2
1894...	20	3.4	4,926,585	—	125,578,065	1,928	2,549	3.9
1895...	19	3.2	5,415,055	—	151,759,419	2,292	2,803	4.2
1896...	21	3.3	5,660,456	—	164,091,750	2,624	2,899	4.6
1897...	21	3.2	6,285,771	79,889,329	194,729,780	3,181	3,098	5.1
1898...	23	3.2	7,493,192	93,498,341	245,824,943	3,835	3,281	5.1
1899...	26	3.5	8,349,263	105,572,242	269,776,613	3,868	3,231	4.6
1900...	26	3.2	9,227,240	119,165,971	281,196,666	3,887	3,047	4.2
1901...	29	3.2	9,267,367	121,837,008	293,216,145	2,844	3,164	3.1
1902...	33	3.1	9,741,760	137,277,889	313,752,516	3,908	3,221	4.0
1903...	36	3.1	11,255,667	155,846,889	363,678,931	4,398	3,231	3.9
1904...	37	3.1	10,680,391	153,236,264	350,293,440	4,560	3,280	4.3
1905...	44	2.9	12,499,167	181,370,232	456,919,680	5,867	3,656	4.7
1906...	79	2.5	21,929,332	315,239,654	847,669,200	9,807	3,865	4.5
1907...	107	2.4	43,901,036	647,183,493	1,686,627,600	17,861	3,842	4.1
1908...	119	2.6	50,569,162	810,099,190	1,934,705,161	18,029	3,826	3.6
1909...	120	2.6	50,234,318	828,447,355	1,971,297,711	15,334	3,924	3.1
1910...	117	2.4	52,949,150	894,413,229	2,030,919,436	12,312	3,836	2.3
1911...	119	2.4	57,972,193	964,921,502	2,284,521,270	13,995	3,941	2.4

N. B.—Coal consumed for operation" includes petroleum dregs converted at 1 *sho*=5.4 *kin* of coal.

PROGRESS OF STATE RAILWAYS.—*Continued.*

Finance

Year	Traffic receipts				Operating expenses						
	Passengers	Goods	Miscellaneous	Total	General	Maintenance	Transportation	Traffic	Electric	Hotel	Ship
	yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
1886...	980,199	269,915	51,004	1,301,118	75,515	168,333	247,374	131,766	—	—	—
1887...	1,320,320	320,901	57,652	1,698,873	67,224	212,509	246,341	151,050	—	—	—
1888	1,785,524	467,297	60,990	2,313,811	78,226	318,250	358,693	212,416	—	—	—
1889	3,033,706	677,185	60,739	3,771,630	212,879	627,833	520,244	302,458	—	—	—
1890	3,305,442	767,967	140,395	4,213,804	138,986	686,657	822,410	353,220	—	—	—
1891...	3,179,873	824,056	106,212	4,110,141	169,239	1,013,591	866,687	377,383	—	—	—
1892	3,487,133	1,019,262	74,238	4,580,633	146,229	839,796	800,520	379,654	—	—	—
1893...	3,977,086	1,306,397	100,972	5,384,455	129,915	640,494	775,386	396,580	—	—	—
1894...	4,295,838	1,430,530	93,045	5,819,413	103,139	519,838	1,058,313	500,406	—	—	—
1895...	5,952,583	1,921,354	130,296	8,004,233	96,216	841,122	1,355,392	658,831	—	—	—
1896...	6,448,602	1,681,294	143,756	8,273,652	108,919	1,197,421	1,634,209	875,114	—	—	—
1897...	7,472,343	2,144,540	110,607	9,727,490	142,045	1,279,779	2,207,190	1,157,035	—	—	—
1898...	8,182,411	2,762,265	141,843	11,086,519	169,697	1,554,999	3,075,958	1,437,609	—	—	—
1899	9,765,904	3,600,679	196,821	13,563,404	178,213	1,770,953	2,912,762	1,529,047	—	—	—
1900... ...	11,046,359	4,359,096	244,446	15,649,951	187,697	1,811,208	3,080,908	1,726,404	—	—	—
1901...	11,115,385	4,902,723	316,202	16,334,310	198,332	2,111,366	3,584,969	2,043,220	—	—	—
1902...	11,959,117	5,489,581	279,704	17,728,402	216,210	2,231,507	3,665,119	2,267,864	—	—	—
1903...	13,043,551	5,973,275	344,916	19,361,742	207,450	2,407,974	3,893,450	2,526,554	—	—	—
1904...	12,587,168	7,331,300	449,299	20,367,767	213,795	2,070,199	3,706,569	2,448,625	—	—	—
1905...	14,535,884	8,866,874	653,382	24,056,140	352,484	2,796,723	5,005,791	2,974,157	—	—	—
1906...	20,720,870	13,944,931	812,516	35,478,317	490,024	4,055,205	8,727,616	4,974,756	—	—	—
1907...	38,394,184	50,500,896	880,081	69,775,161	1,016,292	8,194,209	15,893,394	10,648,048	—	—	—
1908...	42,922,705	35,835,101	1,063,777	79,821,583	1,204,659	7,781,230	20,334,138	11,366,905	982,167	—	1,190,538
1909	43,511,990	37,522,659	1,201,787	82,236,436	1,089,559	8,472,835	19,982,448	10,200,066	1,080,080	—	1,236,001
1910	46,483,237	41,508,438	1,344,917	89,336,592	1,416,486	9,565,693	18,157,589	11,293,356	1,403,922	31,201	1,380,122
1911...	52,339,348	46,329,795	1,510,675	100,179,818	1,180,459	10,156,710	18,530,243	12,234,622	1,739,418	33,021	1,518,702

PROGRESS OF STATE RAILWAYS.—*Continued.*

Finance

Year	Operating expenses			Net profit	Traffic receipts per day per mile	Expenses per day per mile	Net profit per day per mile	Percentage of operating expenses to receipts	Operating expenses per train mile	Traffic receipts per train mile	Net profit per train mile
	Rent of private railways	Subsidies to Relief Association	Total								
	yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*%*	*yen*	*yen*	*yen*
1886...	—	—	622,988	678,130	18.28	8.75	9.53	.48	—	—	—
1887...	—	—	677,124	1,021,749	19.70	7.85	11.84	.40	—	—	—
1888...	—	—	967,585	1,346,226	18.90	7.91	11.00	.42	—	—	—
1889...	—	—	1,663,417	2,108,813	19.33	8.52	10.80	.44	—	—	—
1890...	—	—	2,001,273	2,212,531	20.97	9.96	11.01	.47	1.44	.69	.76
1891...	—	—	2,426,900	1,683,241	20.40	12.04	8.35	.59	1.24	.73	.51
1892...	—	—	2,166,199	2,414,434	32.79	10.78	12.01	.47	1.30	.61	.68
1893...	—	—	1,942,375	3,442,080	26.46	9.54	16.91	.36	1.44	.52	.92
1894...	—	—	2,181,696	3,637,717	28.20	10.57	17.63	.37	1.39	.52	.87
1895...	—	—	2,951,561	5,052,672	37.29	13.75	23.54	.37	1.85	.68	1.17
1896...	—	—	3,815,663	4,457,989	36.52	16.84	19.68	.46	1.72	.79	.93
1897...	—	—	4,786,049	4,941,441	41.15	20.24	20.90	.49	1.82	.89	.92
1898...	—	—	6,238,263	4,848,256	43.91	24.71	19.20	.56	1.71	.96	.75
1899...	—	—	6,390,975	7,172,429	49.69	23.41	26.27	.47	1.90	.90	1.01
1900...	—	—	6,806,217	8,843,684	53.50	23.27	30.23	.43	1.99	.86	1.12
1901...	—	—	7,937,887	8,396,423	51.21	24.89	26.32	.49	2.05	1.00	1.05
1902...	—	—	6,380,700	9,347,792	49.72	23.50	26.22	.47	2.10	.99	1.11
1903...	—	—	9,035,428	10,326,314	47.90	22.35	25.55	.47	1.99	.93	1.06
1904	—	—	8,439,188	11,928,579	47.50	19.68	27.82	.41	2.24	.93	1.31
1905...	—	—	11,129,155	12,926,985	44.82	20.74	24.09	.46	2.25	1.04	1.21
1906...	—	—	18,247,601	17,230,716	45.21	23.25	21.95	.51	1.87	.96	.91
1907...	—	—	35,751,943	34,023,218	47.87	24.53	23.34	.51	1.86	.95	.91
1908...	—	—	42,859,637	36,961,946	48.46	26.02	22.44	.54	1.84	.99	.85
1909...	—	—	42,060,980	40,175,447	49.19	25.16	24.03	.51	1.94	.99	.95
1910...	—	—	43,249,372	46,087,220	51.34	24.86	26.49	.48	2.00	.97	1.03
1911...	129,604	245,477	45,768,256	54,411,562	55.29	25.26	30.03	.46	2.06	.94	1.12

PROGRESS OF STATE RAILWAYS.—*Continued.*

Year	Finance				
	Capital	Construction expenses settled	Improvement expenses settled	Additional expenses settled	Cost of contruction (represented by their purchase price of them)
	yen	*yen*	*yen*	*yen*	*yen*
1885	17,885,344	15,058,320	—	—	—
1886	21,134,853	2,394,508	—	—	—
1887	26,284f853	5,167,670	—	—	—
1888	33,391,027	6,184,720	—	—	—
1889	34,447,633	2,986,006	—	—	—
1890	34,973,185	704,620	—	444,330	—
1891	36,610,529	1,186,940	—	312,853	—
1892	37,570,274	861,628	—	347,343	—
1893	39,422,778	66,742	—	638,857	—
1894	42,661,167	3,640,835	—	647,406	—
1895	45,815,967	2,362,296	—	1,027,851	—
1896	51,764,265	4,085,771	1,166,300	470,039	—
1897	67,618,139	9,525,608	4,412,827	443,834	—
1898	79,810,485	7,799,570	3,851,001	509,268	—
1899	91,548,670	9,536,280	2,369,562	413,215	—
1900	111,009,495	14,348,276	4,357,661	745,089	—
1901	127,649,232	12,323,110	2,962,840	701,715	—
1902	144,395,061	14,452,110	3,708,426	689,237	—
1903	161,135,866	13,561,881	2,891,859	536,633	—
1904	169,575,604	7,008,555	1,115,742	443,889	—
1905	177,147,563	4,374,905	543,211	386,858	—
1906	189,966,470	7,171,817	3,894,267	839,237	—
1907	380,347,457	15,769,858	5,866,282	1,784,308	144,101,884
1908	753,886,988	20,809,487	9,205,472	1,848,799	326,965,043
1919	784,963,769	24,900,098	8,838,992	2,542,235	—
1910	823,196,507	19,693,998	16,798,373	1,658,526	—
1911	872,229,998	19,963,484	29,236,813	1,843,102	—

N.B.—The construction expenses settled include the expenses incurred by the laying of the Hokkaido lines and by the construction of a bridge over the new water course of the river Yodo, while in the returns of 1907 and 1908 the purchase price of private railways are included.

The construction and improvement expenditures settled include prepayments.

PROGRESS OF STATE RAILWAYS.—*Continued.*

Year	Works					
	No. of works	No. of mechanics	Aggregate No. of mechanics	Wagea	Average wages per aggregate No. of mechanics	Average No. of days worked per capital per year
				yen	*yen*	*yen*
1886	2	—	—	—	—	—
1887	2	—	—	—	—	—
1888	2	—	—	—	—	—
1889	2	—	—	—	—	—
1890	3	—	—	—	—	—
1891	3	—	—	—	—	—
1892	3	—	—	—	—	—
1893	3	1,302	365,466	148,738	.407	280.7
1894	3	1,374	423,092	172,928	.409	307.9
1895	3	1,654	529,473	202,181	.382	320.1
1896	3	1,894	626,391	254,854	.407	330.7
1897	3	2,503	834,113	382,170	.458	333.2
1898	3	2,600	810,243	407,953	.503	311.6
1899	3	2,706	829,341	431,799	.521	306.5
1900	3	2,842	906,820	488,324	.539	319.1
1901	3	3,441	1,058,678	577,566	.546	307.7
1902	3	3,656	1,124,605	630,533	.561	307.6
1903	3	3,529	1,105,553	638,163	.577	313.3
1904	3	3,713	1,174,948	698,415	.594	316.4
1905	4	4,530	1,450,423	811,537	.560	320.2
1906	13	8,023	1,934,850	1,167,498	.603	241.2
1907	21	12,930	3,747,238	2,420,089	.646	289.8
1908	22	14,039	4,159,204	2,726,842	.656	296.3
1909	23	13,322	3,900,864	2,642,855	.678	292.8
1910	23	14,143	4,444,228	2,961,035	.666	314.2
1911	24	15,658	5,148,130	3,382,813	.657	328.8

N.B.—The number of mechanics represents the average of the number returned at the end of each month. The aggregate number of mechanics is obtained by counting one day's work at 10 hours, a mechanic undertaking 15 hours being counted as $1\frac{1}{2}$.

Electric

Year	No. of stations dealing with message	No. of stations dealing with public message	Apparatus			Telegrams			
			Telegraphic	Telephone	Block instrument	Railway	Public	Total	Allotment made on account of public telegrams
	piece	*piece*	*piece*	*piece*	*piece*	*message*	*message*	*message*	*yen*
1891	—	—	—	—	—	650,120	99,774	749,894	6,282
1892	104	34	134	17	36	739,593	122,423	862,016	7,080
1893	106	38	137	16	36	827,027	130,403	957,430	7,158
1894	119	39	152	16	74	1,214,972	138,069	1,353,041	7,910
1895	112	46	156	16	82	1,648,985	174,385	1,823,730	9,018
1896	123	53	171	18	104	3,483,160	368,519	3,851,679	12,363
1897	139	54	* 14 197	* 5 19	110	2,375,663	377,312	2,752,975	15,816
1898	153	54	* 20 224	* 12 32	160	2,361,202	412,594	2,773,796	16,985
1899	167	66	* 22 244	* 9 50	* 4 172	2,445,134	394,566	2,839,700	18,696
1900	184	81	* 27 271	* 14 61	* 2 178	2,960,616	418,989	3,379,605	22,003
1901	199	98	* 33 297	* 15 65	* 2 217	5,301,253	500,465	5,801,718	22,369
1902	229	128	* 36 329	* 17 123	* 3 265	5,488,462	547,175	6,035,637	23,655
1903	252	155	* 42 367	* 16 156	* 2 294	6,042,133	709,137	6,751,270	30,020
1904	258	167	* 56 393	* 16 158	* 2 309	5,885,524	743,216	6,628,740	36,445
1905	311	184	* 56 466	* 17 194	* 2 318	7,777,035	990,598	8,767,933	42,596
1906	732	491	* 34 1,034	* 35 835	872	12,822,494	2,018,308	14,840,802	82,456
1907	1,140	684	* 121 1,564	* 41 2,040	* 5 1,238	23,669,872	4,120,162	27,790,034	154,033
1908	1,188	729	1,489	2,890	1,335	26,473,445	4,140,856	30,614,301	204,706
1909	1,226	784	1,519	3,831	1,652	32,590,138	5,661,677	38,251,815	204,384
1910	1,298	820	1,612	5,349	2,073	34,060,951	5,984,256	40,045,207	216,816
1911	1,353	862	1,833	6,889	2,422	38,116,990	6,310,814	44,427,804	228,335

N.B.—Telegraph apparatus comprises recorders, sounders, duplex sounders, block instruments and automatic relays.

The block instruments comprise double line instruments, Tyres, Webb Thompsons, and single line instruments. The figures marked with asterisk (*) represent the apparatus belonging to other offices, Government or private, and installed in Government Railway Offices for convenience. These are shown separately, besides being included in the totals.

In the number giving telegraphic messages, despatched and received are counted as one and transmitted as 2.

PROGRESS OF STATE RAILWAYS.—*Continued.*

Officials and Employees

Year	Higher grade.						Lower grade					
	Chokunin rank			*Sonin* rank			Clerks			Assistant engineers		
	No.	Monthly salary	Average salary per capita	No.	Monthly salary	Average salary per capita	No.	Monthly salary	Average salary per capita	No.	Monthly salary	Average salary per capita
	m.	*yen*	*yen*	*m.*	*yen*	*yen*	*m.*	*yen*	*yen*	*m.*	*yen*	*yen*
1891...	—	—	—	—	—	—	—	—	—	—	—	—
1892...	—	—	—	—	—	—	—	—	—	—	—	—
1893...	—	—	—	—	—	—	—	—	—	—	—	—
1894...	2	542	271.00	39	4,040	103.59	717	14,697	20.50	151	4,301	28.48
1895...	2	542	271.00	40	4,575	114.38	873	17,414	19.95	147	4,297	29.23
1896...	3	792	264.00	62	6,525	105.24	1,001	21,610	21.59	211	5,751	27.26
1897 ..	5	1,417	283.40	63	6,576	104.38	1,154	25,753	22.32	212	6,337	29.89
1898...	4	1,167	291.75	63	7,309	116.02	1,175	27,397	23.32	249	8,435	33.88
1899...	4	1,167	291.75	71	8,141	114.66	1,286	32,268	25.09	290	10,430	35.97
1900...	4	1,167	291.75	103	11,034	107.13	1,461	37,311	25.54	356	12,700	35.67
1901 ..	4	1,167	291.75	104	12,093	116.28	1,505	39,907	26.52	368	13,465	36.59
1902...	4	1,167	291.75	113	12 809	113.35	1,522	43,929	28.86	368	14,510	39.43
1903...	2	625	312.50	109	13,025	119.50	1,513	46,461	30.71	311	13,135	42.23
1904...	3	875	291.67	85	10,832	127.44	1,328	43,950	33.09	265	12,115	45.72
1905...	3	875	291.67	120	14,514	120.95	1,550	52,059	33.59	354	15,397	43.49
1906...	4	1,166	291.50	135	15,919	117.92	1,682	59,183	35.19	405	17,005	44.43
1907...	14	3,834	273.86	324	33,909	104.66	3,995	127,538	31.92	1,291	17,505	42.27
1908...	17	4,584	269.65	426	46,133	108.29	4,825	158,835	32.92	2,090	87,585	41.91
1909...	18	4,883	268.50	441	48,658	110.34	4,492	154,810	34.46	1,950	84,754	43.44
1910 ..	18	5,942	330.11	453	60,735	134.07	4,344	185,132	42.62	1,972	104,226	52.85
1911...	21	6,658	332.90	502	68,654	136.76	4,562	197,652	43.33	2,156	112,874	52.35

PROGRESS OF STALE RAILWAYS.—*Continued.*

Officials and Employees

Year	Employees			Labourers of regular employ			Total		
	No.	Monthly salary	Average salary per capita	No.	Monthly salary	Average salary per capita	No.	Monthly salary	Average salary per capita
		yen	*yen*		*yen*	*yen*		*yen*	*yen*
1891...	—	—	—	—	—	—	—	—	—
1892...	—	—	—	—	—	—	—	—	—
1893...	—	—	—	—	—	—	—	—	—
1894...	873	8,781	10.06	8,111	70,465	8.69	9,893	102,826	10.39
1895...	1,030	9,970	9.68	8,872	76,245	8.59	10,964	113,043	10.31
1896...	1,751	18,718	10.69	10,972	106,849	9.74	14,000	160,245	11.45
1896...	2,149	25,027	11.65	13,496	150,972	11.19	17,079	216,082	12.65
1898...	2,356	28.165	11.95	13,927	160,390	11.52	17,774	232,863	13.10
1899...	2.570	33,490	13.03	14,391	172,323	11.97	18,612	257,819	13.85
1800...	2,783	37,344	13.42	16,175	201,670	12.47	20,882	301,226	14.43
1901...	2,796	39,337	14.07	17,637	227,654	12.91	22,414	333,623	14.88
1902...	3,079	45,422	14.75	18,616	243,957	13.10	23,702	361,794	15.26
1903...	3,104	47,514	15.31	18,623	251,929	13.53	23,662	372,689	15.75
1904...	3,114	46,322	14.88	18,666	248,611	13.32	23,461	362,705	15.46
1905...	3,849	58,562	15.21	23,002	308,158	13.40	28,878	449,565	15.57
1906...	15,217	310,912	20.43	42,204	543,654	12.88	59,647	948,829	15.91
1907...	22,306	413,776	18.55	60,336	835,169	13.84	88,266	1,468,801	16.64
1908...	22,106	380,869	17.23	60,404	861,68[illegible]	14.27	89,868	1,539,692	17.13
1909...	22,311	400,373	17.95	60,918	883,728	14.51	90,131	1,577,156	17.50
1910 ..	23,709	465,023	19.61	65,131	956,006	14.68	95,627	1,777,064	18.58
1911...	25,800	501,418	19.43	70,371	1,051,351	14.94	103,418	1,938,607	18.75

PROGRESS OF STATE RAILWAYS.—*Continued.*

Year	Population			
	Male	Female	Total	Percentage of increase
				%
1886	—	—	58,530,400	—
1887	—	—	39,137,100	.016
1888	—	—	39,626,600	.013
1889	—	—	40,076,500	.011
1890	—	—	40,460,300	.010
1891	—	—	40,718,800	.006
1892	—	—	41,083,400	.009
1893	—	—	41,378,600	.007
1894	—	—	41,694,700	.008
1895	—	—	42,225,300	.013
1896	—	—	42,665,300	.010
1897	—	—	43,180,400	.012
1898	—	—	43,716,400	.012
1899	—	—	44,269,900	.013
1090	—	—	44,831,300	.013
1901	—	—	45,404,700	.013
1902	—	—	45,990,000	.013
1903	23,535,600	[2]3,052,400	46,588,000	.013
1904	23,851,200	[2]3,346,400	47,197,600	.013
1905	24,173,700	[2]3,645,600	47,819,300	.013
1906	24,502,700	23,948,400	48,451,100	.013
1907	24,839,900	24,252,100	49,092,000	.013
1908	24,834,500	24,483,800	49,318,300	.006
1909	25,107,400	24,790,100	49,897,500	.012
1910	25,393,700	25,103,900	40,497,600	.012
1911	25,693,700	25,425,500	51,119,200	.012

N.B.—The above table does not include the returns of Formosa, Karafuto (Sagalien) and Chosen.

PROGRESS OF STATE RAILWAYS.—*Continued.*

AREA OF THE PREFECTURES.

Jurisdiction	Area	Jurisdiction	Area	Jurisdiction	Area
	square *ri*		square *ri*		square *ri*
Tokyo	138.67	Yamanashi	297.33	Hiroshima	547.71
Kyoto	292.85	Shiga	226.20	Yamaguchi	394.64
Osaka	120.19	Gifu	706.01	Wakayama	292.46
Kanagawa	150.40	Nagano	878.75	Tokushima	267.96
Hyogo	535.76	Miyagi	483.85	Kagawa	119.65
Nagasaki	253.78	Fukushima	895.25	Ehime	369.50
Niigata	827.96	Iwate	1,039.43	Kochi	459.56
Saitama	248.57	Aomori	636.18	Fukuoka	319.14
Gumma	394.65	Yamagata	597.35	Oita	403.74
Chiba	325.38	Akita	734.39	Saga	158.29
Ibaraki	398.43	Fukui	257.02	Kumamoto	481.89
Tochigi	426.25	Ishikawa	272.47	Miyazaki	501.73
Nara	258.35	Toyama	259.16	Kagoshima	591.51
Mie	351.28	Tottori	241.24	Okinawa	143.98
Aichi	319.15	Shimane	437.44	Hokkaido	5,987.03
Shizuoka	495.28	Okayama	440.77	Total	24,978.58

PROGRESS OF STATE RAILWAYS.—*Continued.*

OFFICIALS IN CHARGE OF STATE RAILWAYS SINCE THE INAUGURATION OF THE SERVICE.

Tenure of Office	Title	Name
from March 1870	Director	Mr. Kagenori Ueno
to July „	Vice-Director...	Mr. Maremasu Hirai
from August 1870		
to October „	Director	Mr. Tomozane Yoshii
from October 1870		
to August 1871	Director	Mr. Katsu Inoue
from August 1871	Director	do.
to January 1877	Vice-Director...	Mr. Sukemasa Ota
from January 1877		
to March 1893	Director	Viscount Katsu Inoue
from March 1893		
to „ 1903	Director	Dr. Soichiro Matsumoto
March 1903	Acting Director	Dr. Seijiro Hirai
from March 1903		
to December „	Director	Dr. Kintake Furuichi
from December 1903		
to October 1904	Acting Director	Dr. Seijiro Hirai
from October 1904		
to March 1907	Director	do.
from April 1907	President...	do.
to December 1908	Vice-President	Mr. Ichiji Yamanouchi
from December 1908	Precident...	Baron Shimpei Goto
to August 1911	Vice-President	Dr. Seijiro Hirai
from August 1911	Precident...	Mr. Takashi Hara
	Vice-President	Dr. Sijiro Hirai

II. LINES PROJECTED.

Lines projected up to the 31st. March, 1912, are as follows:—

Chuo Line.

From Hachioji or Gotemba via Kofu or to Nagoya.
From Nagano or Shinonoi via Matsumoto to a junction on the foregoing line.
From Kofu to Iwabuchi.

Connection between the Chuo and Hokuroku Lines.

Tajimi, Gifu-ken, to Gifu.
From a point on the foregoing line or Matsumoto via Takayama to Toyama.

Hokuroku Line.

(a) From Tsuruga via Kanazawa to Toyama, and (b) from a point on the main line to Nanao.
From Maizuru via Obama to Tsuruga.

Connection between Hokuroku and Hokuetsu Lines.

From Toyama to Naoetsu.

Hokkaido Line.

From Naoetsu, Maebashi or Toyono, Nagano-ken, to Niigata or Shibata.

U-Etsu and Gan-Etsu Lines.

(a) From Shibata via Tsuruoka, Sakata and Honjo, Akita-ken, to Akita; and (b) From a point on the main line to Yonezawa.
From Niitsu via Wakamatsu to Shirakawa, Motomiya or thereabouts.

O-U Line.

(a) From Fukushima or thereabouts via Yonezawa, Yamagata, Akita and Hirosaki to Aomori; and (b) From a point on the main line to Sakata.

From Sendai via Tendo or Ishinomaki and Kogoda to Shinjo.
Kurosawajiri or Hanamaki, Iwate-ken, to Yokote, Akita-ken.
From Morioka to Miyako or Yamada.

Sobu, Boso and Joban Lines.
From Ueno via Chiba and Sakura to Choshi.
(a) From Funabashi to Sakura; and (b) From Naruto to Togane.
From Soga, Chiba-ken, via Kisaratsu, Hojo and Katsuura to Ohara.
From Mito via Taira to Iwanuma.
From Taira to Koriyama.

Kinki Line.
From Nara to Kamitsuge.
From Osaka, or Yagi, or Takada, Nara-ken, via Gojo to Wakayama.
From Kyoto to Nara.
From Kyoto to Maizuru.
From Yamada to Toba.

San-yo Line.
From Mihara, Hiroshima-ken to Akamagaseki.
From Kaidaichi to Kure.
From Okayama to Uno.

San-in Line.
(a) From Kyoto via Toyoka, Tottori, Matsue and Hamada to Yamaguchi or thereabouts; and (b) From a point on the main line to Sakai, Kizuki and Hagi.

Connection between the San-in and San-yo Lines.
(a) From Himeji via Ikuno or Sasayama Maizuru or Sonobe, or (b) From Tsuchiyama, Hyogo-ken, via Fukuchiyama to Maizuru.
(a) From Wadayama to Tottori; or (b) From Okayama via Tsuyama to Yonago and Sakai; or (c) Kurashiki or Tamashima, Okayama-ken, to Sakai.
From Hiroshima to Hamada.

Shikoku Line.
Kotohira via Kochi to Susaki.
From Tokushima to a junction with the foregoing line.
From Tadotsu via Imaharu to Matsuyama.

Kyushu Line.
From Saga to Saseho and Nagasaki.
(a) From Kumamoto to Misumi; and (b) From Udo on the main line via Yatsushiro to Kagoshima.
From Yatsushiro via Komenotsu to Kagoshima.
From Kumamoto to Oita.
From Kokura via Oita and Miyazaki to Kagoshima
From Iizuka to Harada.
From Kurume via Yamaga to Kumamoto.

Hokkaido Line.
From Asahigawa via Tokachibuto and Akkeshi to Abashiri.
From Toshibetsu via Akkeshi to Nemuro.
From Sunagawa or thereabouts to Shimofurano.
From Asahigawa to Soya.
From Amaryugenya to Mashige.
From Nayoro to Abashiri.
From Otaru to Hakodate.

In the foregoing list the lines which are included in the first period construction program are as follows:—

From Hachioji via Kofu and Suwa to Nagoya.
From Shinonoi via Matsumoto to a junction with the foregoing line.

Hokuroku Line.
From Tsuruga via Kanazawa to Toyama.
From Maizuru to Tsuruga.

Connection between the Hokuroku and Hokuetsu Lines.
From Toyama to Naoetsu.

Hokuetsu Line.
From Naoetsu to Niigata and Shibata.

U-Etsu and Gan-Etsu Lines.
From Shibata to Murakami.
From Niitsu to Kitagata.

O-U Line.
(a) From Fukushima or thereabouts via Yonezawa, Yamagata, Akita and Hirosaki to Aomori; and (b) From a point on the main line to Sakata.

Sobu, Boso and Joban Lines.
(a) From Funabashi to Sakura; and (b) From Naruto to Togane.
(a) From Soga to Hojo; and (b) From Katsuura to Ohara.
From Taira to Koriyama.

Kinki Line.
From Kyoto to Maizuru.
From Takata via Gojo to Wakayama.
From Yamada to Toba.

San-yo Line.
From Mihara to Akamagaseki.
From Kaidaichi to Kure.
From Okayama to Uno.

San-in Line.
(a) From Maizuru via Hamada and Yamaguchi to Ogori; and (b) From a point on the main line to Sakai, Kizuki and Hagi.

Shikoku Line.
From Kawada to Ikeda.
From Tadotsu to Kawanoe.

Kyushu Line.
From Saga to Nagasaki and Sasebo.
From Kumamoto to Misumi.
From Udo via Yatsushiro to Kagoshima.
(a) From Usa to Saeki; and (b) From Miyazaki to Yoshimatsu.
From Sendai to Kagoshima.

Hokkaido Line.
From Asahigawa via Tokachibuto to Akkeshi.
From Sunagawa or thereabouts to Shimofurano.
From Akkeshi to Nemuro.
From Toshibetsu (Ikeda) to Abashiri.
From Asahigawa to Soya (Wakkanai).
From Amaryugenya (Fukagawa) to Rumoi.

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IMPERIAL GOVERNMENT RAILWAYS OF JAPAN

(Also Private and Light Railways and Tramways in Japan Proper)

Annual Report

FOR

THE YEAR ENDING MARCH 31st,

1913

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1913

385.52
J271
1912/13

WEIGHTS, MEAURES AND MONEYS, WITH ENGLISH, AMERICAN, FRENCH AND GERMAN EQUIVALENTS.

JAPAN	GREAT BRITAIN	UNITED STATES OF AMERICA	FRANCE	GERMANY
Ri	2.44030 Miles.	2.44029 Miles.	3.92727 Kilomètres.	3.92727 Kilometer.
Shaku=.1 *Jo*=10 *Sun* =100 *Bu.*	=1. ft. 2 $\frac{11}{12}$ Miles.	=1. ft. 2 $\frac{11}{12}$ inches.	=.30303 Mètre.	=.30303 Meter.
Ken=6 *Shaku*=60 *Sun.*	=7. ft. 5 $\frac{11}{12}$ inches.	=7. ft. 5 $\frac{1}{2}$ inches.	=1.81818 Mètre.	=1.81818 Meter.
Square *Ri.*	5.95505 Square Miles.	5.95505 Square Miles.	15.42347 Kilomètres Carrés.	15.42347 Quadrat-kilometer.
Chō=10 *Tan*=100 *Se* =3,000 *Bu or Tsubo.*	2.45064 Acres.	2.45064 Acres.	99.17355 Acres.	99.17355 Ar.
Tsubo.=6 *Square Shaku.*	3.95369 Square Yards. 4.960	3.95369 Square Yards.	3.30579 Centiares.	3.30579 Quadratmeter.
Koku=10 *To*=100 *Shō.* =1,000 *Go.*	4.96005 Bushels.	47.65389 Gallons. (Liquid) 5.11902 Bushels. (Dry)	1.80391 Hectolitres.	1.80391 Hektoliter.
Kwan=1,000 *Momme.*	8.26733 lbs. (Avoir.) 10.04711 „ (Troy.)	8.26733 lbs. (Avoir.) 10.04711 „ (Troy.)	3.75000 Kilogrames.	3.75000 Kilogramm.
Kin=160 *Momme.*	1.32277 lbs. (Avoir.) 1.60754 „ (Aroy.)	1.32277 lbs. (Avoir.) 1.60754 „ (Troy.)	0.60000 Kilograme.	0.60000 Kilogramm.
Yen=100 *Sen*=1,000 *Rin.*	2s.0d.582.	0.4984 Dollar.	2.583 Francs.	2.0924 Mark.

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General Railway Map of Japan and South Manchuria.

IMPERIAL GOVERNMENT RAILWAYS OF JAPAN

ANNUAL REPORT

FOR

THE YEAR ENDING MARCH 31st, 1913.

GENERAL RESUME SUBMITTED BY THE PRESIDENT TO THE MINISTER-PRESIDENT OF STATE.

I have the honour to submit herewith the following report on the general working of the Imperial Government Railways of Japan and private railways in Japan proper for the year ending March 31st, 1913. The total mileage of railways open to traffic at the end of the year under review was 5,985 miles, of which 5,217 miles were represented by the Imperial Government Railways and 768 miles by private railways. The train mileage totalled 58,490,726 miles, the number of passengers carried 193,008,635 and the weight of goods hauled 36,152,521 tons, while the number of passengers carried one mile aggregated 3,859,809,859 and the weight of goods hauled one mile 2,738,017,833 tons. The total receipts from operation were 109,245,726 *yen*, of which 58,172,056 *yen* came from coaching and 51,073,670 *yen* from goods service.

The returns for the State lines are as follows:—

TRAFFIC RESULTS

The average mileage of railways open to traffic during the year under review was 5,084.2 miles for passenger traffic and 5,126.1 miles for goods, an increase over the preceding year of 187.4 miles in the former and 179.4 miles in the latter. The train mileage aggregated 53,993,932 miles, being 5,263,148 miles more than in the preceding year. The number of passengers carried totalled 160,711,737 and the weight of goods moved 32,537,345 tons, an increase of 9,633,958 in the former and 3,200,291 tons in the latter as compared with the preceding year, while the total number of passengers carried one mile were 3,626,316,499 and the aggregate weight of goods moved one mile 2,691,464,174 tons, being 243,730,088 and 343,592,699 tons more than the respective figures for the preceding year.

The receipts from operation were 54,306,013 *yen* for the coaching service, 49,377,673 *yen* for goods, 2,140,838 *yen* for shipping and 105,824,524 *yen* for the total being an increase over the preceding year's figures of 7,375,274 *yen* in the total.

PASSENGER

In reviewing the general results of traffic, it is to be noted that throughtout the spring time great acttivity was noticed on the various lines owing to the influx of excursionists on a visit to various places of note and interest, and as well as of party pilgrims who were drawn in an immense number to the seats of religious festivals held during that

particular season at Buddhist temples and Shinto Shrines, notably to the Zenkoji Temple, Shinano province, and the Kompira Shrine in the Island of Shikoku. In summer when the exodus of passengers to summer resorts began to bring about a general quickening of the service, the nation was suddenly plunged into mourning for the demise of the Emperor Meiji, passenger traffic suffering a heavy slump in consequence. The adverse turn was, however, restored by the flow of passengers on the move between Tokyo and Kyoto in order to see the Imperial Funeral and also of those on a visit to the Aoyama Ceremonial Hall and the Momoyama Mausoleum, all of which were subsequently opened to the public for inspection and for the offer of homage to the memory of the beloved Emperor. The number of passengers who alighted at Momoyama station for a period of 46 days recorded grand figures of above 600,000. With the advent of autumn when the scarlet-tinged maple leaves and mushroom-gathering annually supply an occasion for picnics among the Japanese, a number of extra trains were run at frequent intervals for the conveyance of holiday-makers, and this special service was strikingly in evidence this year along the different lines in the Empire.

The special manoeuvre conducted in Kawagoe districts in November and the naval review held near Yokohama harbour in November imparted a salutary influence to passenger business on the lines concerned. The holiday season ranging between the year-end and the earlier part of January came off rather dull this year on account of the national mourning, but it was to a certain extent enlivened by pilgrims to the Great Shrine of Ise and other Shinto shrines. The closing month of the fiscal year under review, favoured with seasonable weather, witnessed the lively transport of pleasure-seeking visitors to places noted for cherry-blossoms.

GOODS

Adverting next to goods traffic, the brisk movement of general commodities was maintained throughout the year owing to the favourable tone of the market, cereals, fertilizers, timber, charcoal, cotton and cotton cloth, notably, showing an appreciable improvement on the returns of the preceding year. The prosperous condition was further promoted during the latter half of the year under review as a result of the marked reduction of freight rates which took effect in October. On the whole the results of traffic for the year may fairly be described as satisfactory both in passenger and goods business.

TRAFFIC ARRANGEMENTS

To give a gist of the more important arrangements made for railway communications during the year, a complete renovation was effected on June 15th in the train schedule on the Tokaido and the San-in lines, and the limited express train service was inaugurated on the Shimbashi-Shimonoseki line to make connection, by means of the cross-strait steamers between Shimonoseki and Fusan, with the Chosen-Manchurian express and the train de luxe on the Chinese Eastern Railway in North Manchuria, with a view to facilitating the overland communication between Eastern Asia and Europe. On the other hand, the express service was created on the Shimbashi-Tsuruga line for the benefit of tourists bound for Europe by the Tsuruga-Vladivostok route. Then a number of through and express goods trains were additionally put in commission in order to effect rapid transit of merchandise.

On October 1st, a fundamental revision was made in the list of rates on wagon goods, whereby the unification of freight was brought about and also a general reduction of rates effected.

As a devise of supplying the inhabitants of cities and towns with cheaper greens, fish, beef and other necessaries produced in the neighbouring country, a discount parcels rates on them were put into force on February 1st.

On March 1st a revision was made in the discount rules governing the transport of party passengers, whereby the rates of discount which had hitherto been remained uniform throughout the year, was finely graded according to the season. The enforcement of the new rules is expected to relieve the overcrowding and congestion which had hitherto marked spring months, much to the disruption of general passenger.

JOINT TRAFFIC

Joint traffic arrangements were concluded with the South Manchuria Railway for the conveyance of passengers and goods via the Chosen Railway lines, with the Ome Railway Co.'s and the Tobu Railway Co.'s lines for goods, and with the newly-opened Yoshino, the Semboku, and the Echigo Light Railway Companies' lines as well as the light railway lines under management of the Chiba Prefecture for the conveyance of passengers and goods.

Then the periodical distribution of guide books and illustrated posters among the public was sedulously attended to, as is annually the case, with the view of giving information as to the fares, rates and other rules in force on the Railways and also of introducing to them places of interest along the lines.

During the year working expenses amounted to 14,102,347 *yen*, an increase of 1,867,725 yen over the preceding year.

SHIPPING SERVICE

The average length of lines worked for steamer service in operation during the year under review was 247.8 nautical miles. The number of steamers in commission at the end of the year was 29 representing a gross tonnage of 19,351 tons, of which 4 vessels with a gross tonnage of 4,233 tons were chartered ships. The number of trips made during the year was 36,053. The expenses incurred by the shipping service during the year amounted to 1,617,894 *yen*, being 99,192 *yen* more than in the preceding year.

LOCOMOTIVE WORKING

During the year under review locomotive mileage totalled 64,753,040 miles, vehicle mileage 1,083,665,560 miles, the amount of coal consumed for running purposes 2,647,477,065 *kin* (inclusive of 17,605,944 *kin* of petroleum dregs as converted at one *sho* of oil = 5.4 *kin*) representing 6,883,680 *yen* in value, while the amount of oil consumed aggregated 15,136 *koku* representing 299,491 *yen*. Compared with the preceding year's figures, these items show an increase of 6,780,847 miles in locomotive mileage, of 118,744,058 miles in vehicle mileage, of 362,955,795 *kin* in the amount of coal consumed representing 809,124 *yen* in value, and of 1,141 *koku* in oil consumed representing 51,841 *yen* in value. Then, as regards the percentage of the foregoing items per 100 locomotive miles, coal works out to 4,089 *kin* representing 10.631 *yen*, an increase of 148 *kin* or 3.8 per cent. in amount and of .153 *yen* or 1.5 per cent. in value, and oil to .0234 *koku* representing .463 *yen*, a decrease of .0007 *koku* or 2.9 per cent. in amount and an increase of .036 *yen* or 8.4 per cent., while the percentage of coal per 1000 vehicle mileage works out to 2,2443 *kin* representing 6.352 *yen*, an increase of 75 *kin* or 3.2 per cent. in amount and .057 *yen* or .9 per cent. in value.

Transportation expenses required during the year under review totalled 13,404,770 *yen*, an increase of 1,714,228 *yen* as compared with the preceding year.

ROLLING STOCK RETURNS

Rolling stock returns existing at the end of the year under review comprised 2,381 locomotives, 4 Imperial carriages, 6,144 passenger carriages and 40,527 goods wagons,

showing an increase over the preceding year of 76 locomotives, 257 passenger carriages and 2,575 goods wagons and a decrease of of 2 Imperial carriages.

IMPROVEMENTS & PROVISIONS FOR ROLLING STOCK & APPLIANCES

The provision for rolling stock and improvement thereon carried out during the year comprised 98 carriages and 1,783 wagons provided with better axles and wheels, 195 carriages equipped with electric lights and 721 carriages with Pinch's gas lights, 31 locomotives and 243 carriages fitted with vacuum brakes, 51 locomotives with steam brakes, 434 wagons with side brakes, and 80 locomotives and 576 carriages provided with steam heating apparatus. Modification of type made to vehicles comprised 688 7-ton open trucks reconstructed into 9-ton, and 780 8-ton iron-built coal trucks into 9-ton, 77 locomotives having their fire-grates replaced by rocking grates, and electric fans fitted to 45 carriages. Then thirteen 2500 type locomotives were converted into 2700 type, five 2200 type, two 2120 type and eight 2500 type locomotives were converted into 2900 type, while 4 carriages and 349 wagons were scrapped and 9 locomotives given over by transfer. Among the new stock put in service, 54 locomotives, 259 carriages (inclusive of 93 made in the Railway Works) and 2,808 wagons (inclusive of 682 made in the Railway Works) were manufactured in the country, while 24 locomotives were purchased from abroad.

Rolling stock expenses incurred during the year amounted to 7,644,435 *yen*, being 804,734 *yen* more than in the preceding year.

ELECTRICITY

The length of communication wires extended 21,223 *ri* with 2,077 sets of telegraph, 8,178 sets of telephone and 2,798 sets of block apparatus. The number of messages accepted at 1,404 stations so equipped, totalled 47,248,270, inclusive of 6,504,994 of public telegrams for which Railways received 235,470 *yen* as their share in the service. The power and transformer stations numbered 31 representing 8,544 h.p., and 6,589 k.w. in the capacity of generators and 8,061 k.w. in that of transformers, while the aggregate length of power cables measured 388 *ri* with motors in use at 44 places developing 3,998,267 watts. Then the number of electric trams were 72, the mileage travelled by them aggregating 4,687,955 miles. The electric lighting apparatus comprised 43,066 glow lamps developing 2,351,906 watts and 854 arc lamps developing 507,900 watts, besides 24,010 electric lamps fitted in carriages. Altogether, 11,731,315 k.w.h. were generated, 4,842,836 k.w.h. transformed, and 7,004,334 k.w.h. consumed for the running of electric trams and locomotives.

FINANCE

The revenue account for the year year under review shows 111,272,852 *yen* for revenue, 90,014,429 *yen* for expenditure and 726,364 *yen* for the balance of the light railways subsidy fund, leaving a balance of 19,632,059 *yen*. After deducting rebates and advances, expenses on account of track supervision, surveying, additional expenses and interest charges, there are left 108,025,637 *yen* for revenue and 50,013,647 *yen* for expenditure, netting a profit of 58,011,990 *yen*. Compared with the preceding year's figures, earnings increased by 7,845,819 *yen*, expenses for operation 4,245,392 *yen* and profit by 3,600,427 *yen*. The percentage of expenses to earnings from operation stands at 46.3 per cent., an increase of .6 per cent. as compared with the preceding year.

As regards the reserve fund account, the revenue for the year amounted to 2,109,310 *yen*, which were carried forward to the next year's account, there being no disbursement charged to the same account.

In the railway stores and workshop account, the profit amounted to 44,298,459 *yen* and the loss to 43,873,249 *yen*, leaving a balance of 425,210 *yen*.

The capital consolidated from the inception of the service down to the end of the preceding year aggregated 872,229,998 *yen*, to which were added 60,441,282 *yen* for the year under review, bringing the total to 932,671,280 *yen* of which 205,343,909 *yen* were represented by special capital and 727,327,371 *yen* by the borrowed.

RAILWAY STORES

The purchase of railway stores totalled 42,363,373 *yen*, consisting of 36,287,754 *yen* for domestic supplies and 6,075,619 *yen* for the foreign. Compared with the preceding year, the domestic supplies increased by 2,542,613 *yen*, the foreign by 1,251,928 *yen* and the total 1,290,685 *yen*.

MAINTENANCE WORK

In maintenance work numerous provisions were made where necessary throughout the system with a view to maintaining the tracks in efficient condition and commensurate with the increasing traffic. To be particular, the resleepering, repair of roadbeds, repainting of iron bridge girders, replacement of worn-out rails and other matters relative to ordinary maintenance work were assiduously attended to, while on the other hand extensive repairs and alterations were carried out to permanent way and buildings in connection with the additional and improvement works. The hurricanes, torrential downpours and washaways which repeatedly visited the country since June, 1912 seriously affected the Gan-Etsu, the Central, the Shin-Etsu and the San-in lines, entailing no small amount of expenses on emergency and restoration works. At the same time it may be noted that in carrying out these works, the best attention was paid to keeping down expenses as well as to ensuring the satisfactory repairs. Then was also carried out the remaining portion of the repair work incidental to the damage from the floods in the previous years.

The amount of expenses debited to the maintenance work this year was 11,352,503 *yen*, an increase of 31,195,793 over the preceding year.

ADDITIONAL WORK

In additional work the policy of gradually securing the facilities adequate to cope with the increasing traffic was pursued, and with that end in view attention was directed to the laying of additional sidings, enlargement and repair of buildings and structures and also betterment of signalling and other safety appliances, while various provisions were made in order to to ensure a higher efficiency of both track and station accommodation.

The amount of expenditure debited to the additional work was 2,060,743 *yen*, an increase of 217,641 *yen* over the preceding year.

IMPROVEMENT WORK

To mention the more important items of improvement work, the laying of two additional tracks on the Ueno-Nippori section, North Eastern line, was brought to a finish, while the duplication between Oyama and Utsunomiya was nearing completion. As regards the same work between Kitasenju and Abiko, Joban line, completion was effected on the Kameari-Matsudo and the Mahashi-Abiko sections with the exception of the bridge over the river Edo. The electrification of the Yokokawa-Karuizawa section, Shin-Etsu line, was also completed. In Tokaido line, the re-arrangement of tracks and stations on the Shimbashi-Hodogaya section, continued from the preceding year, was well forward for the greater parts, while as regards the remaining portion of the

duplication of the Tokaido line, the laying of girders on the Oigawa bridge on the Shimada-Kanaya section and on the Kisogawa bridge on the Kisogawa-Gifu section and the foundation work for the bridging of the river Tenryu on the Nakaizumi-Tenryugawa section were brought to completion, the girder-laying on the latter being now in hand. As to the laying of two additional tracks between Shinagawa and Tabata, Yamanote line, the purchase of land on the Shinagawa-Osaki section was finished and a start was made on the construction work. The Shinagawa reclamation and extension work was completed for greater parts and the ground-making for the new Oi Works was finished. The erection of the Hamamatsu workshops were practically completed on the section continued from the preceding year, and the new section taken in hand in this year was nearing completion. The purchase of land is now is progress for the duplication work between Nakanogo and Tsuruga, Hoku-etsu line. The Shimonoseki-Fusan rail-and-water "Link" and connected works was taken in hand, but no noteworthy progress was made with the work. The duplication on the Osaka-Tamazukuri and the Kizu-Nara sections was finished in greater parts. In Kagoshima line, the duplication between Orio and Ongagawa, continued from the preceding year, was practically completed, while as regards the Shippu branch line, the purchase of land was effected and the construction work finished in greater parts. In Hokkaido line, the boring of the Kamuikotan tunnel which forms the remaining portion of the duplication work between Temiya and Iwamizawa, was brought to a finish, completion being effected therewith for the work on the whole secttion. In regard to the Temiya reclamation and extension works, the remainder work connected with the erection of the pier remained to be finished. The Muroran reclamation and extension works were completed as regards the erection of the coal staith and the landing pier, the reclamation of the first section in the western part and the equipment of the resumed land in the eastern part being now in progress. The duplication between Oiwake and Yubari was completed in the Shimizuzawa-Yubari section, while work on the Momijiyama-Shimizuzawa section was taken in hand and carried well forward. In Tokyo Street line, the construction of the Central station was brought to the verge of completion, the walling, flooring and roofing for the main building being wholly finished. Commencement was made with the erection of the main building of the Karasumori station and good progress made with the work. A part of the work on the Manseibashi station premises was suspended owing to the connection between Kajicho and Manseibashi still remaining undecided, while the purchase of land was practically completed on the sections between the Central station and Ueno and between Kajicho and Manseibashi.

NEW STATIONS

The new station erected during the year comprised 2 on each of the North Eastern, the Hokuroku, and the San-in lines and one on the O-U, the Tokaido, the San-yo, the Kagoshima, the Hakodate, and the Abashiri lines, while block stations newly built during the year numbered 2 on the North Eastern line and one on each of the O-U, the Hokuroku and the Sobu lines, 4 on the Tokaido line and 3 on the San-in line. The extension work was carried out on the following stations:—

Tabata, Ichinoseki, Omiya, Koriyama, Ikebukuro, and Itabashi on the North Eastern line; Kozu, Yamakita, Shimada, Toyohashi, Maibara, Handa, Kisogawa, Sumiyoshi, Kyoto, and Osaka on the Tokaido line; Naoetsu and Komoro on the Shin-Etsu line; Shiojiri on the Central line; Hyogo on the San-yo line; Yokkaichi, Kameyama,

Oji, and Kizu on the Kansai line; Moji, Kami-Kumamoto and Kumamoto on the Kagoshima line; Nishi-Karatsu, Haiki, Kanzaki, and Nagasaki on the Nagasaki line; Kotake on the Chikuho line.

As regards the permanent way improvement, the shifting of track centres, reduction of gradients and curves, the construction of additional bridges and renewal thereof, the replacement of light rails by heavier metals, the strengthening of the tracks with additional sleepers, and the improvement of the roadbeds were carried out throughout the system, while as regards the betterment of bridge girders, steps were taken to replace them with stronger metals and also to re-inforce the girders.

The amount of expenditure on account of improvement work for the year was 31,017,765 *yen*, an increase of 1,780,952 *yen* over the preceding year.

The length of lines open to traffic during the year was 5,217 miles (inclusive of 27.6 miles of the leased line), being an increase of 172.9 miles over the preceding year, while the length of all tracks extended 7,474 m. 46 ch., an increase of 350 m. 19 ch. over the preceding year. The number of stations in service totalled 1,441, being 52 more than in the preceding year.

CONSTRUCTION WORK

The following is a brief abstract of the more important works which come under construction work:—

The Daisha line, which forms a branch to the San-in line, was completed and opened to traffic on June 1st, 1912.

As regards the Hamada line, the Imaichi-Oda section was completed in greater parts, while the Oda-Hanenishi section was re-located owing to the loose strata, coupled with the fact that the locality, on account of its propinquity to the seaside, was exposed to the danger of damage by waves. No small engineering difficulties were experienced in the laying of the section and neighbourhood.

The Yamaguchi line was practically completed and opened to traffic on February 20th, 1913. The Tsuwano line, started in this year, made no noteworthy progress.

The remainder work on the Tomari-Omi and the Natate-Itoigawa section, Toyama line, were completed, the latter section being opened to traffic on October 15th, 1912, and the former on December 16th, 1912. The Omi-Itoigawa section, too, was practically finished, when unfortunately the work was seriously damaged by torrential downpour, no small time being taken in carrying out the restoration work. It is expected, however, that the section will be opened for service at the beginning of the next year.

In regard to the Yamato-Nozawa section, Gan-Etsu line, a start was made with the construction of the Kamanowaki bridge over the river Akano, and with the other works completed in greater parts, the section will be available for use at the beginning of the next year, together with the Maoroshi-Tsukawa section. The work on the Nozawa-Tsukawa section was seriously retarded owing to numerous engineering difficulties. Steady progress was made with the Shibata line, and with the various arrangements completed, it was opened to traffic on September 2nd, 1912. Commencement was made with the Murakami line, the construction work being now in progress throughout the line. Working survey was carried out on the Taira line, while the work on the Koriyama-Natsui and the Taira-Kamiogawa section was well forward.

The Kogota-Iwadeyama section, Shinjo line, made satisfactory progress, and is expected to be available for use at the beginning of the next year. No particular progress was made with the Iwadeyama-Shinjo section, on which working survey was started this year. The Shinjo-Furukuchi section was completed in greater parts, while the difficult Furukuchi-Kiyokawa section was well in hand, and the Kiyokawa-Sakata section was mostly finished with the exception of the difficult work along the river Mogami.

As regards the Anezaki-Kisarazu section, Boso line, completion was effected for the erection of buildings and laying of tracks as well as bridging which formed the remainder work continued from the preceding year, the section being opened for service on August 21st, 1912. The Ohara-Katsuura section was completed in greater parts, and is expected to be available for service at the beginning of the next year.

No noteworthy progress was made with the work on the Hojo and the Obama lines which were both taken in hand this year.

The Saeki line, started in the preceding year, showed very tardy progress owing to engineering difficulties.

The Tokushima line was completed in greater parts, in spite of the heavy damage done to the work by floods in September, 1912.

Steady progress was made with the Tadotsu line started this year.

The work on the Sendai line was seriously hampered by the damage from floods in October, 1912, but the Kagoshima-Kushikino section was practically completed and is expected to be available for service next year. The Kushikino-Sendai section was also finished in greater parts.

The remainder work on the Yoshimatsu-Kobayashimachi section, Miyazaki line, was brought to completion, and opened to traffic on October 1st, 1912. The Kobayashimachi-Miyakonojo section was heavily breached by hurricanes and downpour in October, 1912, but very satisfactory progress was made with the work, the section being expected to be available for service in the next year.

The Nokkeushi-Abashiri section, Abashiri line, was opened for service on October 5th, 1912, platelaying and other items of the remainder work being finished. With this, through service was opened on the whole of the Abashiri line. The Onnenai-Otoineppu section, Soya line, was steadily proceeded with, and opened for service on November 5th, 1912. The greater part of the work on the Takikawa-Shimoashibetsu section and the Shimoashibetsu-Shimofurano sections were brought to a finish.

Working survey on the Nemuro line was completed, and arrangements made to start construction work thereon in the next year.

Turning next to light railways, the Shimodate-Moka section, Moka line, was opened for service on April 1st, 1912, the Kuroishi line on August 15th, 1912, the Kurayoshi line on June 1st, 1912, the Nokkeushi-Rubeshibe section, Yubetsu line, on November 18th, 1912, the Iwanai line on November 1st, 1912. The Kamiiso and the Moka lines and part of the Nagai and the Funakawa lines were completed in greater parts and are expected to be available for service in the next year. Steady progress was made with the Inukai, the Miyaji and the Manji lines.

The outlay on account of construction during the year was settled to the amount of 28,233,137 *yen*, an increase of 8,269,653 *yen* over the preceding year.

EXPERIMENTS & TESTS

In the Railway Testing Office, chemical experiments were carried out on cement, brick, oils, metals, woolen cloths, paints, coal, etc. and also tests were made on the strength of materials, on lighting in carriages as well as on the stress, strains and deflections of bridges.

RELIEF ASSOCIATION

In regard to the Relief Association the membership on the roll at the end of the year under review aggregated 99,923, an increase of 9,206 against the preceding year. The revenues to the coffers of the Association totalled 1,009,422 *yen,* consisting of Government subsidy 357,226 *yen,* subscriptions from the members 524,223 *yen,* bank interest 64,860 *yen,* interest on bonds 32,645 *yen,* hospital revenue 18,251 *yen,* contributions from the interested public 294 *yen,* and sundry receipts 1,923 *yen.* The expenditure, on the other hand, comprised 139,697 *yen* on account of death grants, 146,584 *yen* on account of injury grants, 532 *yen* on account of old age grants, 96,008 *yen* on account of medical allowance, 107,208 *yen* on account of repayments, 30,249 *yen* on account of the hospital expenses, 8,411 *yen* on account of dressing rooms expenses, and 9,359 *yen* on account of machines and tools, bringing the total to 538,044 *yen.* The balance 471,378 *yen* together with 1,510,763 *yen* brought over from the preceding year's account, (1,982,141 *yen* in the total), were carried forward to the next year's account.

The foregoing is the general resume of the results of the working of the Imperial Government Railways of Japan for the year ending March 31st, 1913, and for details I beg Your Excellency to refer to the reports, tables and diagrams of the State lines as appended hereto.

I have the honour to be,

Sir,

Your Excellency's obedient Servant,

TAKEJIRO TOKONAMI,
President, Imperial Government Railways,

December 26th, 1913.

To His Excellency

COUNT GOMBEI YAMAMOTO,
Minister-President of State.

State Railways.

CHAPTER I.

TRAFFIC RESULTS.

The average mileage of lines worked during the year under review was 5,084.2 miles for passenger traffic and 5,126.1 miles for goods traffic, while the total number of passengers carried one mile and the aggregate weight of goods hauled on mile were 3,626,316,499 and 2,691,464,174 tons, respectively. The coaching receipts amounted to 54,306,013 *yen* and the goods wagon receipts to 49,377,673 *yen*, making a total of 103,683,686 *yen*.

These figures are divided among the different Divisions as follows:—

Item	Average passenger traffic mileage	Number of pass. carried one mile	Coaching receipts	Average goods traffic mileage	Weight of goods hauled one mile	Goods wagon receipts
	mile		*yen*	*mile*	*ton*	*yen*
Eastern Division	1,370.8	745,467,165	11,340,456	1,375.9	801,847,541	13,451,803
Central „	1,096.6	1,182,588,851	17,473,157	1,101.4	683,829,492	12,377,828
Western „	1,225.0	1,198,350,875	17,648,233	1,238.6	525,360,314	9,422,890
Kyushu „	577.0	234,738,478	5,144,477	604.8	392,385,883	8,852,299
Hokkaido „	814.8	175,171,130	2,699,690	815.4	288,040,944	5,272,853
Total	5,084.2	3,626,316,499	54,306,013	5,126.1	2,691,464,174	49,377,673

Compared with the corresponding figures for the preceding year, the average mileage worked for passenger traffic increased by 187.4 miles or 3.8 per cent. and that for the goods by 179.4 mile or 3.6 per cent., the increase being accounted for by the opening of the Moka, the Kuroishi, the Daisha, the Kurayoshi, the Iwanai, the Yubetsu, the Yamaguchi and the Miyasaki lines on the one hand and on the other the extension of the Hokuroku, the Shin-Etsu, the Kisarazu, the Shibata, the Abashiri and the Soga. The number of passengers carried one mile increased by 343,730,088 or 7.2 per cent., and the weight of goods hauled one mile by 343,592,699 tons or 14.6 per cent., while the passenger receipts showed a gain of 3,631,754 *yen* or 7.2 per cent., the goods receipts of 3,701,980 *yen* or 8.1 per cent., and the total of 7,333,734 *yen* or 7.6 per cent. over the preceding year.

The general results of traffic during the year under review were on the whole satisfactory both in passenger and goods services. Apart from the fact that the temporary depression of business occasioned by the national mourning for the demise of the Emperor Meiji was more than counterbalanced by the active transport of tourists on a visit to the Ceremonial Hall at Aoyama, Tokyo, and the Imperial Mausoleum at Momoyama, the success may partly be due to the brisk movement of goods maintained throughout the year, and also because damage from floods, which have become almost usual occurrence in the rainy season of the year was free.

The more salient features of the results of passenger and goods traffic during the year shall be described separately as below:—

Favoured with the auspicious weather which obtained during the spring time, the different lines returned quite a heavy volume of traffic, chiefly in the shape of tourists on pleasure trips and students on school excursions, while the number of party pilgrims drawn to the temples and shrines of note on the occasion of their grand fetes was not inconsiderable. Not the least noteworthy was the influx of party pilgrims to the Zenkoji Temple, which, coming as it mostly did from the districts about Nagoya served by the Tokaido and the Kansai lines, invariably took the route from the city direct to Shinano province, and heavily taxed the poor carrying capacity of the Central line for wellnigh two months from April 1st. In order to cope with the situation, three extra trains were scheduled between Nagano, and a number of special trains on the Shin-Etsu line during the period. Altogether, the average number of passengers who alighted at Nagano station worked out to 7,400 per day, while the aggregate number of party pilgrims so carried recorded a grand figure of 119,170 realizing approximately 220,000 *yen* of earnings.

Among the other party tourists transported during the spring may be mentioned a case of 59,100 realizing 105 000 *yen* in connection with the ter-centenary of the Holy of Holies of the Kompira Shrine in Sanuki celebrated from March 1st to May 31st, one of 36,500 with 52,000 *yen* for the festival of the East Honganji Temple at Kyoto from April 23rd to 28th, and one of 66,500 with 30,300 *yen* for the festival of the Senshuji Temple at Ishinden. The festivals held at the Grand Shrine of Izumo, at the Koshoji Temple at Kyoto, the Two Honganji Temples at Tokyo, the Komyoji Temple at Mukomachi, too, drew a fairly large number of pilgrims

to the seats of their respective functions,—all these combining to bring the record of May and April to the highest level in the year. As is annually the case in the rainy season of June when farming is at its busiest, a general stagnation of business was noticed on all lines. It is gratifying to note on the other hand that, while the season passed off witrout the periodical visitation of floods, the business was somewhat enlivened through the opening ceremony of the San-in Line held at the town of Tottori and the general conference of teachers and the exhibitions held at Matsue and Yonago in connection therewith. Owing to the torrential downpour in late July, the temporary paralysis of communications was experienced at places on the Gan-Etsu, the Shin-Etsu and the Hokuroku lines, but fortunately transshipment and other expedients taken timely for the emergency saved the service from being thrown out of gear to any considerable extent. As the summer heat grew in intensity, visitors to mountain resorts or to the sea-sides as well as students on home-coming or on excursions for the summer vacation began to impart salutary influences to passenger business of the season. At this period the public were startled at the news of the demise of the Emperor Maiji, coming closely in the wake of his sudden illness. The nation, plunged in heavy mourning, desisted from outing except on unavoidable business, while the observation of various regular functions of the year was generally postponed till a later opportunity. In consequence, results of passenger traffic during the period fell far below the record of the average year. Then, no inconsiderable portion of local traffic about Kyoto and Nagoya was won over to the Keishin Electric Tramway Co.'s line and the Nagoya Electric Suburban line which were newly opened for service in August.

In connection with the Imperial funeral service conducted on September 13th, a number of special trains were run on the Tokaido lines for guards of honour, foreign envoys and others who accompanied the hearse and the cortège trains to the Momoyama mausoleum where the interment service was performed two days afterwards. On the other hand, the *Nihyakutoka* and *Nihyakuhatsuka* (the 210th and the 220th days of the calendar year, which are regarded by farmers as critical days for the autumn rice crop) passed off calmy, and gave a hearty encouragement to the public anticipation for the prolific harvest of the year, which, favoured with seasonable weather, served an occasion of such an enormous influx of party and individual pilgrims on a visit to the Ceremonial Hall at Aoyama and the Imperial Mausoleum which were kept open to public homage. The passengers who alighted at Momoyama station amounted to approximately 620,000 or upwards of 13,000 per day, over 100 special trains being run for a period of 46 days for the conveyance of them. Toward the end of September when a hurricane visited the Main Island, train service was temporarily paralyzed at places on the lines traversing San-in, Tokushima, Sanuki and the North Eastern districts, but fortunately the damage done was not of so serious dimensions as to affect the general traffic results. With the advent of the season of tinted autumnal leaves in October, special and round trip trains were run for the transport of excursionists to Nikko, Kiso and other places noted for the beauty of scarlet-tinged maple leaves, as also for the service of picnickers for mushroom-gathering. In Kyushu the Liquor and Stock Fair held at Kumamoto in October and the opening of the Kobayashi-machi extension, Miyasaki line, did something to enliven the local market, so did the annual horse race and the festival of the Shokonsha Shrine held at Sapporo in September and the opening of the Abashiri, the Soya and the Yubetsu lines in October. Then, the special grand military manœuvre conducted at Kawagoe from November 16th to 19th, the naval review off Yokohama, and the launching ceremony of the Hiei in Yokosuka naval port served an occasion of lively business on the lines concerned. The prosperous condition was well maintained far into December through the fair movement of traffic in connection with the enlistment of new recruits and the dismissal of the time-expired soldiers. Notwithstanding the fact that the celebration of the New Year's Day was generally omitted owing to the national mourning, the year-end and the first half month of the new year witnessed such a brisk transport of holiday-makers for this particular period that the running of extra trains was called for as in the case of the corresponding period of the usual year. The skating race on Lake Suwa which came to evoke the interest of the general public, drew a fairly large number of sporters and spectators to the seat of the function. The results of foreign tourist parties, then, compared well with the record of the average year. In January and February the Hokuroku, the Shin-Etsu and the Hokkaido lines met with damage from the snowfall of magnitude rare in recent years. The damage was particularly great in Hokkaido where the snowfall came a month earlier than in the usual year, and the record of precipitation was, too, exceptionally high in both amount and frequency. It is gratifying to note, on the other hand, that, thanks to Russel's snowplough which were newly put into service this year, the disruption of the train service on the lines was far less serious than might otherwise have been the case. As compared with the corresponding period of the preceding year which was extraordinarily heavy with the transport of party pilgrims the results of the closing months of the year fared in a rather poor way, and were indeed marked by no propitious feature, except the movement of plum-viewing excursionists whom the fair weather in early spring induced out of town in no insignificant numbers.

As epitomised above, passenger traffic maintained quite a reassuring record throughout the year, realizing a gain over the preceding year of 22,477 or 3.3 per cent. in the average earnings per mile worked. Then as to the average mileage of journey per passenger, it was brought to 22.6 miles, 0.2 miles more than in the preceding year, the advance being attributable to the extension of the new lines and the increase of party tourists on long distance travel, while the average fare per passenger worked out to 31 *yen*, same as in the preceding year. The fact that the gain in the average mileage of journey failed to bring about a corresponding im-

provement of the average fare per mile was due to the increased sale of season, commutation and other cheap tickets, and may on that account be taken as an indication of relief of the burden upon the travelling public in general.

Adverting next to goods traffic, it may be noted that prosperous business was maintained throughout the early months of the year, and this notwithstanding the fact that the service was more or less hampered owing to the busy despatch of extra passenger trains occasioned by the heavy influx of party tourists. With the advent of the fertilizer season the brisk movement of manures of all descriptions was noticed, as was also the railment of rice-produce which was brought to market on an immense scale as a result of the sudden jump of the quotations. Despite the hindrance offered to the porterage service by the continuous rainfall during the wet season, the transport of raw cocoons and mulberry leaves was carried out without a hitch, the amount of raw cocoons shipped over the mountains of Sasago, Usui and Kiso recording 1,500 wagons, an increase of 16 per cent. against the preceding year. Altogether, the earnings of the first three months of the year showed a gain of 1,800,000 *yen* as compared with the returns in the corresponding period of the preceding year.

The wagon ferry service between Shimonoseki and Moji inaugurated on November 1st, 1911, began to show the more reassuring results, a smonths went on, creating the phenomenal swell of through goods traffic between the Main Island and Kyushu, as may well be inferred from the increase of 10,000 wagons or approximately 70 per cent. noticed in the returns for the half year over those for the corresponding period immediately following the inauguration. During the summer months, which are usually marked by the dull tone of business, quite an appreciable movement of rice-produce was witnessed due to the favourable market continued from the preceding months. September saw the temporary stagnation of business owing to the damage from floods and to the check placed upon the despatch of goods in anticipation for the approaching revision of the customs tariff, and also because of the reduced running of goods trains incidental to the Imperial Funeral. With the substantial reduction in goods rates effected by the enforcement of the revised traffic on October 1st, a general quickening came in evidence, a heavy booking being recorded in the despatch of coal, rice, fuel, timber, stone, minerals, salt and fish. Notwithstanding the damage from snowfall on the Shin-Etsu and the Hokkaido lines during the two months of January and February, altogether quite a reassuring record was maintained well into the next year.

In reviewing, then the movement of principal commodities, the delivery of coal in Hokkaido showed a rather poor record as a result of disruption of the service occasioned by the repeated occurrence of eruptions or fires at the collieries at Yubari and also by the unprecedentedly serious snowfall, while on the other hand the traffic in timber returned a salutary record, the various outlets of the Island being crowded with ships for conveying the outward-bound goods. Though a temporary rise in the freight effected in June did something to check the shipment, the salutary condition was maintained for months afterwards, showing an increase of 2 per cent. over the preceding year. The same traffic in the North Eastern districts grew in delivery month of month with the gradual extension of the market, the total weight railed amounting to over 600,000 tons, an increase of 10 per cent. against the preceding year. Traffic in stone and charcoal, too, increased by approximately 10,000 tons over the preceding year, while the delivery of Joban coal marked a further gain of 300,000 tons owing to the favourable one of market. The shipment of fertilizers was particularly heavy in spring and summer, the record for the year standing at 280,000 ton, an increase of 10,000 tons over the preceding year. Encouraged by the appreciation of the price of rice maintained from the beginning of the year, the active transport of the produce was maintained well down to July, but afterwards suffered a considerable falling-off on account of the general depression of the market due to the unsatisfactory condition of the crop on the one hand and on the other to the unreasonable expectation for a higher price of the yield. On the other hand, the produce in the districts served by the Shin-Etsu and the Hokuroku lines showed increasing activity in shipment during the latter half of the year, 10 per cent. more being railed than in the preceding year. Fertilizers, too, were also railed on an immense scale and showed an increase of about 9 per cent. The transport of manures was equally busy, being an increase of about 9 per cent. against the preceding year. The delivery of timber and stone was also fairly active and the minearl stone in particular showed a marked increase in the volume of shipment, the tonnage of the traffic despatched from Nakaizumi, Tenryugawa and Hamamatsu recording an approximately 160,000 tons, as increase of about 70 per cent. over the preceding year in the volume and 100 per cent. in the earnings. Apart from the high price of copper, the prosperity may partly be accounted for by the growing consumption of the minerals for the manufacture of artificial fertilizers which have largely were in demand of recent years. No less favourable were the returns of coal traffic as railed from Nagoya, Yokohama, Naoetsu, and other ports, while the shipment of oranges produced in the Suruga and Totomi districts showed a substantial advance with the extension of the market which came to cover the North Eastern, the O-U and the Hokkaido lines, both the volume and earnings being more than doubled as compared with a few years ago.

Saké (Japanese liquor) from Nada, Itami and Sumiyoshi and neighbourhood maintained the record of the preceding year, while traffic in table salt in the Sambi and Harima districts returned an increase of about 10 per cent. With the revival of trade with China upon the restoration of peace and order in the Republic, cotton yarn grew in delivery, showing an increase of about 30 per cent., and this, in turn, occasioned the brisk import of cotton at Wadamisaki, Onohama and Kobe, the volume being an increase of 20 per cent. against the preceding year. In Sanyo line, the despatch

of fertilizers, timber, brick and minerals returned a gain of between 10 and 30 per cent. With the growth of trawling fishery a phenomenal gain was noticed in the despatch of fish from Shimonoseki and Nagasaki, the volume shipped from the latter city in particular amounting to 160,000 tons, an increase of 500 per cent. against the preceding year.

Thanks to the improved tone of market obtaining from the very beginning of the year, the shipment of Kyushu coal maintained a very salutary record an increase of 860,000 tons and more being railed than in the preceding year, while the shipment of piles returned an equally favourable booking. As regards rice-produce the yield of which proved highly successful all the Island over, an increase of about 18 per cent. was recorded in the traffic, a large quantity coming to be railed for the Main Island with the advent of the wagon ferry service. Lastly, the fertilizers, tobacco and other produces alike showed a not insignificant improvement over the records of the preceding year.

The favourable condition of goods traffic as enumerated above went to bring the average weight of goods per open mile up to 525,051 tons, an increase of 50,417 tons or 10.6 per cent. over the preceding year, realizing 9,633 *yen* of earnings per mile or an improvement of 399 *yen* or 4.3 per cent. On the other hand, the average rates per ton fell off to 1.51 *yen*, being a decrease of .04 *yen*, and of .0011 *yen* in the average rates per ton per mile. This means an increase of only a little more than 4 per cent. against the increase of over 10 per cent. in the average tonnage of goods per mile. The decrease in the average rates per ton and of those per ton per mile may principally be accounted for by the operation of the revised tariff, while the increase of 27 per cent. in the average mileage per ton as compared with the preceding year was partly attributable to the opening of the new lines and the inauguration of the through service between the Main Island and Kyushu over the Strait of Shimonoseki, and partly to the increase of goods of long distance haul consequent upon the extension of the market encouraged by the reduced rates.

CHAPTER II.

TRAFFIC ARRANGEMENTS.

On June 15th the train schedule was re-arranged on the Tokaido and the San-yo lines. Among the several new arrangements made in the present revision may be mentioned the inauguration of the limited express train service between Shimbashi and Shimonoseki which was scheduled in connection with the express train on the Chinese Eastern Railway and with the Chosen-Manchuria through express train in order to facilitate the overland communications with Europe via Chosen, Manchuria and Siberia. The train adopted for the service was composed of superb carriages of the latest type and provided with a finely outfitted private room and an observation parlour, while the system of reserving numbered seats was opened by issuing 'place' tickets. Then the chef de train with a good knowledge of English language was commissioned aboard in order to attend to the requirements of foreign tourists. On the other hand, the express train was run on the Shimbashi-Tsuruga line to effect connection with the liners plying between Tsuruga and Vladivostok for the transport of passengers on the trans-Siberian route. Then, again, extra express trains were scheduled between Shimbashi and Kobe to be run whenever demanded by occasion. Furthermore the express extra charges were revised and classified into the kinds, ordinary and limited, the former to be variable according to class only, irrespective of distance to be covered. As regards freight service, two up through goods trains which had hitherto been in force on the Tokaido and the San-yo lines, were increased to 4 from both directions, while on the Shimbashi-Shinmonoseki line an express goods train was scheduled in order to effect more rapid transit of goods.

On October 1st a revision was effected in the classification of wagon goods and in the through water-and-rail freight throughout the lines, by which the reduction of rates was effected and unification was brought about in the rates which had hitherto remained substantially the same as obtained on the original Government lines prior to the Nationalization and on the purchased railways, and on that account differing in the different lines. The salient features of the revision consisted of general reduction of freight, unification of rates, including of terminal charges in the rates with corresponding reduction of rates by the sum representing terminal charges, simplification of the manner of counting rates, re-grouping of car-load consignment goods, adoption of 10 *kin* unit for ordinary *kin* consignment, and the manner of summing up rates on the two different lines linked by ferry steamer service. It is expected that the reduction will largely go for the benefit of general consignors and in this way offer no small encouragement to the growth of domestic industries.

In view of the satisfactory results obtained in the local delivery service of luggage inaugurated last year at some leading stations, the program was devised for ensuring the gradual spread of the service over all the lines, and Sendai, Kanazawa, Toyama, Niigata, Hiroshima, Nagasaki, Hakodate and 30 other stations were added to the list on October 1st.

For the purpose of supplying city inhabitants with cheaper food stuff produced in the neighbouring provinces, special discount rates were arranged on milk, greens meat and fish, and put into force on February 1st, the reduced rates being 20 *sen* per 30 *kin* up to

50 miles, 5 *sen* to be added for every additional 10 *kin* above 30 *kin*.

In order to facilitate the booking of parcels which have recently come to show an appreciable increase of volume, a large number of parcels offices were opened for service at various cities and towns.

On August 15th the sale of return tickets was opened with a discount rate of 20 per cent. between the leading stations on the Imperial Government Railways and those on the South Manchuria Railway, while on October 15th the benefit of cheap party fares was extended to passengers in party on a visit to South Manchuria by the via-Dairen route.

On December 21st, the charges for the issue of ticket notes were discontinued. The step is judged to further the custom for this convenient service which since its inauguration in 1908 has gradually come to enjoy increasing patronage as a complimentary present of the seasons and as an enclosure of invitation note.

On March 1st the discount party passenger fares were revised, whereby graded rates of discount, variable according to the season, were adopted in place of the system of discounts of equal rate throughout the year. This uniform system was responsible for the congestion of traffic, especially in April when the difficulty was often so acute that it was impossible for the railways to cope with the situation without the temporary suspension or curtailment of the service under the discount rates system. It is to be noted that under the revised system the benefit of specially high rate discount was extended to workshop operatives travelling in party.

The benefit of free transport was granted for articles sent for relief of sufferers from the conflagrations at Matsumoto in April and at Numazu in March, while cereals for distribution among the famine-stricken people were conveyed at a rate reduced by 50 per cent.

Simultaneously with the enforcement of the reduced goods tariff was discontinued the allowance of rebate made on coal traffic on Kyushu lines since 1911 with a view to fostering domestic industry.

On April 1st through traffic service was inaugurated for the conveyance of passengers and goods by the lines of the South Manchuria Railway and of the Railway Bureau of Government General of Chosen and was substituted for the local through traffic with the Autung-Mukden lines and with the South Manchuria Railway via Dairen which had hitherto been in force for the transport of parcels and newspapers and periodicals. The through service was an outcome of direct communications effected between the two Continental railways through the completion of the bridging of the river Yalu and the reconstruction of the Antung-Mukden line.

On October 1st the sale of return tickets reading to Mionoseki was started in league with the Godo Kisen Kaisha Steamshipping Co., while on January 10th, 1913 joint traffic was inaugurated with the Kosaka Railway Co.'s line which connects with the Government lines at Odate station.

The completion of private light railway lines recently witnessed in rapid succession gave occasion to a number of through traffic arrangements made with them. Thus joint service was concluded on October 25th for the conveyance of passengers and their luggage with the Yoshino Light Railway Co.'s line which connects with the Kansai line at Yoshinoguchi station; on October 28th with the Sempoku Light Railway Co.'s line which connects with the North Eastern line at Kogota station; on November 11th with the Echigo Railway Co.'s line which branches off at Kashiwazaki and teminates at Niigata. A similar service was inaugurated on December 11th for wagon goods with the Sedo Electric Railway Co.'s line which connects with the Central line at Ozone station. Then simultaneously with the opening of the Kururi Light Railway Co.'s line on December 28th, direct traffic was arranged between the latter line and the Sobu line and also between the same and the Tobu and the Narita Railway Co.'s lines by way of the Sobu line. On March 1st, 1913 through goods service was inaugurated with the Sedo Electric Co.'s and the Toyokawa Railway Co.'s lines via the Sedo-Toyohashi section of the Government Railways.

Lastly, on March 1st the Baba-Otsu section was suppressed for the conveyance of passengers and their luggage, and the business was entrusted to the Otsu Electric Tramway Co., the above section being leased to that end, and through traffic arranged therewith for the conveyance of passengers and their luggage.

CHAPTER III.

SHIPPING SERVICE.

The number of steamers in service at the end of the year under review was 29 (25 belonging to the Imperial Government Railways and 4 chartered) with a gross tonnage of 10,350.76 tons. The following is the principal arrangements made in connection with the service during the year:—

1. Reservation of 1st class compartments inaugurated.
2. Express service inaugurated on the Shimonoseki-Fusan line.
3. Additional ferryboats put in service on the Shimonoseki-Fusan line.
4. Additional ferryboats put in service on the Aomori-Hakodate line.
5. No. of trips on the Aomori-Hakodate line increased.
6. Additional steam launch put in service in the port of Fusan.
7. Additional steam launch put in service in the port of Shimonoseki.

8. The new ferryboats "Komamaru" and "Shiragimaru" put in service on the Shimonoseki-Fusan line.

The average length of lines worked (specified lines) during the year was 333 nautical miles with an average number of trips working out to 99 and fractions per day, (the returns from the provisional lines excluded). The number of passengers carried amounted to 2,082,115 and the weight of cargo to 512,054 tons, while receipts from passenger traffic aggregated 1,227,568 *yen*, cargo 766,746 *yen*, parcels, luggage and mail matter 146,524 *yen*, making a total of 2,140,838 *yen*. Compared with the corresponding figures in the preceding year, the above show an increase of 12,162 *yen* or one per cent. in passenger receipts, of 21,136 *yen* or 2.8 per cent. in the cargo and 41,540 *yen* or 2 per cent. in the total.

CHAPTER IV.

ACCIDENTS.

The following are particulars of the more serious railway accidents that took place during the year under review:—

On August 27th, 1912 at 6.55 p.m. No. 332 goods train arrived at Koganei station, North Eastern main line, and was attending to the operation of shunting. After coupling a wagon that was standing on a siding, the locomotive was passing near No. 2 point on its way back to the main track, when it found that No. 1. facing point was not yet in position for the incoming No. 233 down passenger train which was at this time fast approaching the home signal. Thereupon the shunting locomotive took alarm, and with the object of providing against exigency, continued pushing on in haste and in time finished coupling with the standing train, while the guard in charge gave "danger" to the incoming down train. Meantime, the driver of the latter train, perceiving "danger" at the home signal, fell to applying the brake, but just at the moment the blue lump for shunting came in sight, which he mistook as a lamp signal for the defective semaphor and relaxed his attempt at slowing down. With the brake "off" again, he resumed running with good speed as far as the home signal, but perceiving there the wrong position of the point he made desperate efforts to bring the train to a halt. The space allowed, however, was too short to prevent the collison of the two trains. The engine of the incoming train telescoped into the standing one, and after speeding some 70 feet came to a stand. 5 wagons were either overturned or tumbled on their sides, and 2 wagons and one carriage were thrown off the rails, inflicting injuries upon 8 passengers and 2 employees. No. 220 train was called back from Ishibashi station to carry the sufferers to their destination, while the clearance of the wreckage was at once started, the line being opened at 4.10 a.m. the following day.

On June 17th, 1912 at 11.27 a.m. a down military train which was standing at Ogaki station, Tokaido main line, was lunged into by No. 459 down goods train, as a result of which 4 carriages were smashed out of shape, 5 soldiers killed on the spot, 20 severely wounded, (of whom 2 subsequently died), and 33 hurt to a more or less extent. The latter goods train which was responsible for the disaster, had started at Ichinomiya station 1.43 hours late rthan due, and after crossing the river Ibi between Hozumi and Ogaki station was running down the slope with the steam-regulator shut. About 40 chains from the distant signal the enginemen sighted "danger" at the signal and took steps to run cautiously with the vaccuum brakes "on." As he came to a point about 30 chains from the foregoing signal, the perilous situation was further confirmed by the indication at the home signal, whereupon he applied the brake with promptitude to slow down, but in vain. Then the engineman sounded three short whistles to urge the trainmen to keep the brakes "on" and at the same time ordered the fireman to get the hand broke "full on." This, however, was ineffectual to bring the train to a stop, and as in the last resort, he applied the reverse lever, opened the regulator and did everything in his power, but unfortunately the brake power at disposal was found insufficient to overcome the momentum the train had developed by this time. The result was, that, as stated, the incoming train ran with force into the rear portion of the stationary passenger train at a point about 10 chains within the home signal. After proceeding about 152 feet still forward, the locomotive was derailed, while the latter passenger train was splitted at between Nos. 2 and 3 carriages from the rear, the rest being moved some 370 feet on. The goods train which escaped intact was hauled back to Hozumi station by the locomotive of No. 23 train sent for thereto, while a single line service was opened pending the block of the down line, through traffic on the double rail line being resumed at 1.25 p.m.

On June 3rd, 1912 at 11.20 a.m. No. 303 passenger train, making sure of "line clear" at the distant and the home signals, was approaching Yokkaichi station, Kansai main line. As it came nearer, it found No. 7 point in the wrong position, and took prompt steps to stop, but in vain. It went on running into No. 2 line and collided with No. 413 goods train which was standing on the track. 9 passengers were injured by the concussion which ensued the collision, while 8 wagons were damaged to a slight extent. The passenger train which fortunately escaped intact was shunted to the right track and re-started for its destination, while the goods train was coupled to No. 2263 train on the spot and sent on its way. The accident was due to the pointman being for-

getful of re-setting his point to the right position for the incoming passenger train.

On November 16th, 1912 at 7.10 p.m. when No. 20 passenger train was approaching Hanaten station, Katamachi line, the assistant station master in charge, unware of the wrong position of No. 11 facing point, gave 'line clear' to the train and allowed it to rush into No. 5 line. All efforts made by the engineman proved of no avail to prevent his train from colliding with the 2 wagons standing on the track. The wagons were smashed, while 9 passengers were injured by the shock given by the collision. The train was immediately shunted to the right track and re-started after the elapse of about 30 minutes.

On June 12th, 1912 at 4.37 p.m., as No. 408 up mixed train was running near 23 miles 78 chains from Oiwake on the Shikanotani-Shimizuzawa section, Yubari line, one of the stones by the roadside tumbled down and struck against the foot-board of the brake van 13 cars off from the head. This the conductor noticed, and at once took steps for stopping the train, but the stone went on rolling into a carriage and caused it to get uncoupled and to jump off the metals, 6 passengers and 2 railway servants being injured in the accident. With the occupants of the damaged carriages transshipped into carriages in front and the derailed car left behind, the train resumed its journey after a stand of 31 minutes on the spot.

On February 8th, 1913 at 9.36 p.m. No. 378 up goods train arrived at Horowake station 13 minutes later the time scheduled, and proceeded with shunting operation in spite of the fact that there were only a few minutes before the arrival of No. 5 passenger train which was to cross the former train at the station. After uncoupling 2 wagons on the middle line, the goods train was receding into the main track, when No. 5 train came in and collided with it. Both engines and 6 carriages and wagons were damaged, and 3 passengers, 4 postmen and 2 servants were injured to a more or less extent, while one servant was severely wounded. He subsequently died. A relief train was sent for to Muroran station, and with the injured and other passengers transshipped thereon, the train resumed its journey. The down line was opened at 6.55 p.m. on the day following, and the up line at 9.20 p.m. on the 10th. The accident was due to the fact that shunting operation was carried near the home signal a short time before the arrival of the passenger train, while on the other hand the servant in charge of the latter train failed to keep an efficient lock-out ahead owing to the snow-drift which was raging at that moment.

Owing to abnormal rainfall which frequently visited the country from late July to early October, floods were out and occasioned washaways and collapse of cuts at various places, involving the paralysis of train services on the Hoku-etsu, the Shin-etsu, the Gan-etsu, the Uno, the San-in and the Miyasaki lines. On July 22nd the Uotsu-Mikkaichi and the Nyuzen-Tomari sections were blocked, the former section being opened for through traffic on 27th and the latter on August 2nd. The Nagano-Nacetsu section, Shin-Etsu line, too, was badly breached at various places for a distances of approximately 46 miles, through traffic being stopped from 23rd. The section, however, was re-opened the following day with the exception of the Kashiwabara-Taguchi section which, in consequence of the collapse of the bridge over the river Sekigawa, remained closed to traffic down to 31st, transshipment of passengers being resorted to during the interval. On July 22nd through servic was suspended on the Yamato-Kitakata section, Gan-Etsu line, and after the temporary re-opening effected by emergency repair, the section was again blocked owing to another visitation of torrential rain on August 2nd and not until 6th direct communication was resumed on the sections, while the Odera-Okinajima section was blocked on August 22nd, the transshipment of passenger being established on 4th and the resumption of through traffic on 7th. On September 22nd the Takamatsu-Marugame section was heavily breached at several places, but through communication was mostly opened on 25th, while on 27th transshipment service was established for a distance of about 2 *cho* on the Kokubo-Kamogawa and the Utatsu-Marugame sections and the former was opened on 28th and the latter on 29th for through communication. Traffic on the San-in line was interrupted at several places for a matter of 108 miles on the Toyooka-Yonago section on 23rd, the greater part of which, however, was re-opened the following day, with the sole exception of the Kutani-Hamasaka section where transshipment was established on the noon of 30th, and through service opened in the same afternoon simultaneously with the Tottori-Hamamura section. On October 2nd the Kobayashimachi-Kyomachi section was blocked, the through service being resumed on the Iino-Kyomachi section on the day following and on the Kobayashimachi-Iino section on 5th.

From the beginning of December, 1912 toward the end of March next year the train service was frequently interrupted on all lines in Hokkaido owing to the visitation of fierce snowstorms, causing delay of trains at several places. The trouble was especially acute on the Osamunai-Moseushi, the Minenobu-Iwamizawa, the Karugawa-Zenibako, and the Kombu-Mena sections where a number of trains were snowbound on more than one occasion. On the last named section, in particular, the disruptio of the service on February 26th occasioned the delay of some through trains to the extent of between 5 and 10 hours. Th section was not re-opened till March 1st.

The Umegaka-maru, the steamer in the ferry service between Shimonoseki and Fusan, while lying at anchor outside the port of Moji in order to undergo the cleaning of her boiler, met with a hurricane and was sunk at 6.50 a.m. on September 23rd, 1912.

On January 22nd, 1913, the Tamura-maru, the steamer in the ferry service between Aomori and Hakodate, while proceeding from Hakodate laden with passengers and cargo ran aground about one mile off Sarakizaki, Oshima province, at 5.17 p.m. owing to a thick snowfall and temporary abnormal drift of the current. No damage was done to passengers and cargo, the ship getting clear of the rock at 6 a.m. on the day following.

CHAPTER V.

ARRANGEMENTS FOR RAILWAY OPERATION.

ELECTRIC TRAM SERVICE.—Electric tram service was opened on the Shoheibashi-Manseibashi section (0.2 mile) on April 1st, 1912.

The following sections were open to traffic at the end of the year:—

Section.	Mile
Gofukubashi-Ueno	19.5
Ikebukuro-Akabane	3.5
Manseibashi-Nakano	8.0
Total	31.0

STEAM MOTOR CAR SERVICE.—Steam motor car service was opened on the following sections:—

Section.	Mile	Date of Opening
Kanzaki-Takedao	16.2	April 16th, 1912.
Takedao-Sanda	5.8	June 15th, 1913.
Tsukaguchi-Amagasaki	2.9	April 16th, 1912.
Tofumachi-Shikama	3.5	do.
Hyogo-Wadamisaki	2 5	do.
Hyogo-Kobe	1.1	June 15th, 1912.
Shijonawate-Amijima	8.4	April 21st, 1912.
Oji-Sakurai	13.1	August 15th, 1912.
Hanaten-Katamachi	2.2	April 21st, 1912.
Agei-Kurayoshi	2 6	March 27th, 1913.
Nogata-Nakama	6.1	July 21st, 1912.
Nogata-Kotake	4.0	do.
Kotake-Kobukuro	3.1	do.
Katsuno-Kirino	3.3	do.
Total	74 8	

The same service was suppressed on the following sections:—

Section.	Mile	Date of Suppression
Minatomachi-Kashihara	10.1	May 30th, 1912.
Moji-Orio	19.4	July 21st, 1912.
Orio-Nakama	2.6	do.
Total	32.1	

The following sections were in operation at the end of the year:—

Section.	Mile
Shijonawate-Sakurai	8.4
Oji-Sakurai	13.1
Hanaten-Katamachi	2.2
Kanzaki-Sanda	22.0
Tsukaguchi-Amagasaki	2.9
Agei-Kurayoshi	2.6
Tofumachi-Shikama	3.5
Kobe-Wadamisaki	3.6
Nogata-Nakama	6.1
Nakama-Kazuki	2.2
Nogata-Kotake	4.0
Kotake-Kobukuro	3.1
Katsuno-Kirino	3.3
Total	77.0

CHAPTER VI.

IMPROVEMENTS AND PROVISIONS FOR ROLLING STOCK AND APPLIANCES.

1. IMPROVEMENTS AND PROVISIONS FOR ROLLING STOCK.

Locomotives.

Item.	No.
Fire-box and fire-gate remodelled	151
Smoke-box remodelled	7
Stack fitted with cover	202
Boiler lagging remodelled	70
Interior parts of boiler remodelled	1
Pyrometers equipped	24
Steam transmission arrangements made	103
Lubricator renewed	62
Feed-apparatus renewed and remodelled	63
Cylinder and accessoris remodelled	84
Regulator valve remodelled	17
Engine partially remodelled	80
Brake fitted	117
San-box remodelled	5
Underframe and fittings remodelled	3
Driving wheel and axle-box remodelled	52
Tyre-cooler fitted	91
Machine parts partially remodelled	65
Tender remodelled	38
Driver's cab remodelled	58
Coupler remodelled	5
Main heating tube coupler standardised	439
0-6-2 tank engine reconstructed into 2-6-2 type	15
0-6-2 tank engine reconstructed into 0-6-4 type	13
Steam transmission apparatus remodelled	41
Brake remodelled	23

Passenger Carriages.

Brake remodelled	322
Steam heater fitted	716
Main heating-tube copler estandardized	1,178
Lighting arrangements improved	1,084
Electric fan fitted	45
Foot-board remodelled	58
Vestibule provided	21
Toilet-room and W. C. provided	147
Windows and ventilator remodelled	32
Sliding and hinged doors remodelled	31
Coupler remodelled	8
Underframe remodelled	26
Interior of car body remodelled	29
Axle and axle box renewed	98
Dynamo and battery suspender provided	60
Bogie truck remodelled	14
Cable-hanger fitted	28
6-wheeled bogie 2nd class sleeping reconstructed into 2nd class with smoking room	8
6-wheeled bogie 2nd class dining car reconstructed into 2nd class dining for foreign and Japanese meals	3
6-wheeled reconstructed into same for Japanese meal	3
6-wheeled bogie 1st class sleeping and dining car reconstructed into 2nd class with 1st class berths	3

4-wheeled bogie 1st and 2nd class with hand brake reconstructed into 1st and 2nd class brake van....	3
Small type 4-weeled bogie 1st and 2nd class with hand brake reconstructed into 2nd class with hand brake	2
Small type postal van with hand brake reconstructed into postal, luggage and brake van	1
4-wheeled 1st class reconstructed into service car	1
do. reconstructed into 2nd class	2
4-wheeled 1st and 2nd class with hand brake reconstructed into 2nd class with hand brake	2
4-wheeled 2nd class reconstructed into 2nd and 3rd class	5
4-wheeled 3rd class reconstructed into 3rd class brake van	60
do. reconstructed into postal brake van	5
4-wheeled 3rd class luggage and brake van reconstructed into luggage and brake van	10
4-wheeled postal van with hand brake reconstructed into postal and brake van	4
do. reconstructed into postal, luggage and brake van	2
4-wheeled postal van reconstructed into luggage and brake van	3
do. reconstructed into 3rd class brake van	5
do. reconstructed into postal and brake van	6
4-wheeled 3rd class postal van reconstructed into postal, luggage and brake van	7
4-wheeled 3rd class postal van with hand brake reconstructed into postal, luggage and brake van..	1
4-wheeled electric car reconstructed into subsidiary car with luggage room	2
Steam-heating arrangements remodelled	282
W. C. and toilette room remodelled	17

Goods Wagons.

Brake provided or remodelled	770
Sliding door provided	28
Car body partially remodelled	118
Steam pipes provided	8
Boiler for heating purpose provided	1
Underframe remodelled	30
Coupler remodelled	118
Cable-hanger fitted	165
Axle and axle-box renewed	1,787
21-ton open truck reconstructed into 18-ton	167
7-ton open truck reconstructed into 9-ton	688
8-ton iron-built coal truck reconstructed into 9-ton	780
4-wheeled bogie open truck reconstructed into timber truck	75
do. reconstructed into open truck serving as timber truck	75
4-wheeled covered wagon reconstructed into supply wagon	3
4-wheeled emergency wagon reconstructed into covered brake van	5
4-wheeled tender reconstructed into open truck with hand brake	3
4-wheeled earth truck with hand brake reconstructed into open truck with hand brake	10
4-wheeled earth truck reconstructed into open truck	40
4iwheeled reconstructed into timber truck	39
4-wheeled open serving as timber truck reconstructed into timber truck	20

2. ROLLISG STOCK ADDED TO AND STRUCK OFF THE LIST.

Locomotives added to the List.

Description.	No.	Maker.
10-wheel coupled tank	4	J. A. Maffei, Germany.
4-wheel coupled tender	15	Kawasaki Dockyard Co., Hyogo Branch.
do.	15	Osaka Kisha Seizo Kaisha.
6-wheel coupled tender	12	American Locomotive Co.
8-wheel coupled tender	24	Kawasaki Dockyard Co., Hyogo Branch.
Mallet type compound 4-wheel coupled tender	6	American Locomotive Co.
Abt's type 6-wheel coupled electric	2	Allgemeine Electricitaets Geselschaft, Germany.
Total	78	

Passenger Carriages added to the List.

Description.	No.	Maker
6-wheeled bogie observation car	5	Shimbashi Works.
„ „ Dining with smoking room	5	Omiya Works..
„ „ 1st class	3	Shimbashi Works.
„ „ 1st class sleeping with smoking room	6	do.
do.	2	Kobe Works.
„ „ 2nd class	3	Shimbashi Works.
do.	13	Osaka Kisha Seizo Kaisha.
„ „ 2nd class sleeping	6	Kobe Works.
„ „ 2nd class dinning with smoking room	2	do.
do.	2	Omiya Works..
„ „ 2nd class brake van	2	Kobe Works.
„ „ 3rd class	5	do.
„ „ 3rd class luggage and brake van	2	do.
„ „ postal, luggage and brake van..	5	Kawasaki Dockyard Co., Hyogo Branch.
Total	61	
4-wheeled bogie 1st class (for Imperial train)..	1	Shimbashi Works.
„ „ 1st and 2nd class	3	Omiya Works.
do.	5	Shimbashi Works.
„ „ 2nd class with 1st class sleeping berths	2	do.
„ „ 1st and 2nd class sleeping	2	do.
„ „ 2nd class (for Imperial train)..	1	do.
„ „ 2nd class	3	Sapporo Works.
„ „ 2nd and 3rd class	17	Nippon Sharyo Seizo Kaisha.
„ „ 3rd class	13	do.
do.	57	Kawasaki Dockyard Co., Hyogo Branch.
do.	12	Kobe Works.
„ „ 3rd class brake van	21	Nippon Sharyo Seizo Kaisha.
„ „ 3rd class luggage and brake van	21	do.
do.	1	Kokura Works.
„ „ postal and brake van	1	Kobe Works.
„ „ postal, luggage and brake van..	7	Omiya Works.
do.	1	Kokura Works.
„ „ luggage and brake van	1	do.
do.	4	Kobe Works.
„ „ electric tram	3	Shimbashi Works.
„ „ luggage room	3	do.
„ „ steam motor car	8	Osaka Kisha Seizo Kaisha.
Total	198	
Grand total	259	

Goods Wagons added to the List.

Description.	No.	Maker.
4-wheeled bogie snow-plough	7	Sapporo Works.
„ „ iron-built coal truck	102	Osaka Kisha Seizo Kaisha.
„ „ refrigerator	70	Yokkaichi Works.
„ „ stock wagon	100	Kobe Works.
„ „ iron-built covered wagon	200	
do.	40	Nippon Sharyo Seizo Kaisha.
do.	45	Kawasaki Dockyard Co., Hyogo Branch.
„ „ covered wagon	300	do.
do.	30	Tsuchizaki Works.

4-wheeled bogie covered wagon	30	Morioka Works.
do.	136	Osaka Kisha Seizo Kaisha.
do.	59	Kobe Works.
do.	266	Osaka Kisha Seizo Kaisha, Tokyo Branch.
„ „ covered brake van	7	Asahigawa Works.
do.	450	Nippon Sharyo Kaisha.
do.	100	Kawasaki Dockyard Co., Hyogo Branch.
„ „ timber truck	200	Osaka Kisha Seizo Kaisha, Tokyo Branch.
„ „ open truck	128	Omiya Works.
do.	71	Morioka Works.
do.	80	Tsuchizaki Works.
„ „ open brake van	100	Takatori Works.
„ „ iron-built bottom hopper coal truck	205	Kawasaki Dockyard, Co., Hyogo Branch.
do.	32	Mitsubishi Dockyard.
„ „ iron-built bottom hopper coal and brake van	50	Kawasaki Dockyard Co., Hyogo Branch.
Total	2,808	

Vehicles struck off the List.

Description	No.	Disposed of by
4-wheeled Imperial carriage	1	Western Division.
do.	1	Kyushu Division.
6-wheeled bogie luggage and brake van	1	Western Division.
4-wheeled bogie 3rd class luggage and brake van	1	do.
4-wheeled 3rd class	2	do.
Total	6	
4-wheeled bogie covered wagon	25	Hokkaido Division.
„ „ covered brake van	10	do.
„ „ open truck	205	do.
„ „ timber truck	2	do.
4-wheeled covered wagon	3	Eastern Division.
do.	22	Western Division.
do.	21	Hokkaido Division.
do.	22	Imperial Government Railways.
4-wheeled bogie covered brake van	4	Western Division.
do.	5	Hokkaido Division.
do.	5	Imperial Government Railways.
„ „ fish wagon	1	do.
„ „ cokes truck	1	Eastern Division.
„ „ earth truck with hand brake	1	Hokkaido Division.
„ „ open brake van	1	Eastern Division.
„ „ open wagon	1	do.
do.	2	Western Division.
do.	1	Hokkaido Division.
do.	7	Imperial Government Railways.
4-wheeled bogie open truck with hand brake	12	Hokkaido Division
Total	349	
Grand total	355	

Vehicles given over by transfer.

Description	No.	Transferred to
4-wheel coupled tank	2	Miyasaki Kencho.
6-wheel coupled tank	1	Chuetsu Tetsudo Kabushiki Kaisha.
do.	5	Yoro Tetsudo Kabushiki Kaisha.
do.	1	Tokyo Jari Tetsudo Kabushiki Kaisha.
Total	9	

CHAPTER VII.

WORKS.

At the end of the year there were 24 works in operation. The average number of operatives and labourers per day worked out to 16,638, while the aggregate number of day's work amounted to 5,613,375 and the sum of wages paid to them totalled 3,740,976 *yen* in round figures.

The principal items of work carried out were the construction of 93 passenger carriages and 682 goods wagons, and the repair of 2,326 locomotives, 10,323 passenger carriages and 74,620 wagons. Besides, 24 locomotives purchased abroad were erected.

The branch plant of the Takatori Works was created at Yonago on April 1st, 1912 and the Hamamatsu Works was opened on November 1st, 1912, while the Numazu Works was suppressed on November 10th, 1912 and the Hiroshima Works on March 31st, 1913.

The following is an abstract of the more important arrangements made at the different Works:—

1. EASTERN DIVISION.

Omiya Works. Tool-making shop, office room to the store-houses, store-rooms, and dressing room erected; turntable provided; motive power of the smithy changed into electric-operated motor; additional traverser and pit provided; 29 sets of machinery installed.

Honjo Works. Re-roofting of casting shop, erecting shop, boiler shop and power room completed; 2 sets of machinery installed.

Morioka Works. Light repair shop, storeroom of casting shop, tyre-fitting room, and temporary boiler shop erected; 10 sets of machinery installed.

Tsuchizaki Works. Coal-bin, official residences, guardians' quarters and charcoal shed erected; part of office rooms re-arranged into dressing room; smithy trasplanted; saw-mill floored; additional traverser and pit provided; one set of machinery installed.

2. CENTRAL DIVISION.

Shimbashi Works. Timber yard provided; 58 sets of machinery installed.

Hamamatsu Works. Erecting shop, lathe shop, office room and accessory buildings erected; water tank for official residence provided; operatives' mess-room and wash-stands built; service pipes laid; 122 sets of machinery stalled.

Nagano Works. Saw-mill shed built and fencing carried out; operatives' mess-room rebuilt; 26 sets of machinery installed.

Kanazawa Works. Water tank provided; service pipes laid; 13 sets of machinery installed.

3. WESTERN DIVISION.

Kobe Works. 8 sets of machinery installed.

Takatori Works. Operatives' mess-room and W.C.'s provided; official residences built or enlarged; part of electric shop, temporary engine room and rivet-setting shop transplanted and re-arranged; coal-bin transplanted; service water arrangements made; 22 sets of machinery installed.

Shimonoseki Works. Wheel-making shop erected; 2 sets of machinery installed.

Ikeda Works. Saw-mill erected; 4 sets of machinery installed.

Minatomachi Works. One set of machinery installed.

Yokkaichi Works. Various buildings transplated, rebuilt and enlarged incidental to the enlargement of the station; new track-scale provided; 4 sets of machinery installed.

Tadotsu Works. Bath-room provided.

4. KYUSHU DIVISION.

Kokura Works. Erecting shop, lathe shop and store-houses erected; 22 sets of machinery installed.

Yukuhashi Works. Bath-room provided for operatives; quarters for engineering staff transplanted; spur lines re-arranged.

5. HOKKAIDO DIVISION.

HAKODATE WORKS. One set of machinery installed.

SAPPORO WORKS. New traverser provided; 2 sets of machinery installed.

IWAMIZAWA WORKS. 13 sets of machinery installed; 12 sets of machinery installed in the Muroran Branch Plant.

ASAHIGAWA WORKS. 3 sets of machinery installed.

CHAPTER VIII.

ELECTRICITY.

1. ELECTRIC COMMUNICATION

The electric communication arrangements made during the year comprised, for the Eastern Division, the additional wiring of telephone lines and connected works between Akita and Odate, Shinjo and Akita, Ichinoseki and Morioka, and Morioka and Aomori, and the wiring of trunk lines and connected works between Sendai and Ichinoseki; for the Central Division the wiring of trunk lines between Shimbashi and Numazu and the laying and re-location of 32 circuits at various places in the jurisdiction and the renewal of electric lines between Ofuna and Hiratsuka and Hiratsuka and Kozu; for the Western Division the construction of new telephone circuits between Osaka and Itozaki and Itozaki and Shimonoseki, the installation of new Tyre's tablets and connected works on the Wadayama-Toyooka, the Iwami-Izumoimaichi, and the Gojo-Futami and 25 other sections; for the Kyushu Division the construction of overhead-and-underground cables between Moji and Shirokizaki, and of telephone circuits between Kumamoto and Kagoshima, Moji and Oita, and Moji and Tosu; for the Hokkaido Division the betterment of communication and signal lines and the additional wiring of telegraph lines on a number of sections of the different lines.

TELEPHONE AND TELEGRAPH LINES (Communication Lines). The length of lines measured 2,1669 *ri* and length of wires 21,223 *ri*, an increase over the preceding year of 98 *ri* or 4.7 per cent. in the former and 3,776 *ri* or 21.6 per cent. in the latter.

COMMUNICATION CIRCUITS. The number of circuits totalled 7,273 with an aggregate length of wires extending to 23,782 *ri*, an increase over the preceding year of 1,464 or 25.2 per cent. in the number of circuits and of 3,308 *ri* or 16.2 per cent. in the length of wires.

COMMUNICATION AND SIGNAL APPARATUS (in actual service). Telegraph apparatus of all descriptions numbered 2,077 sets, an increase of 12 sets or .6 per cent. as compared with the preceding year, the proportion of the recorders to the sounders being 3.3 or 6.7, the former showing a marked decrease year after year. Telephone apparatus amounted to 8,178, an increase of 1,289 or 18.7 per cent. over the preceding year, while block instruments aggregated 2,798 (75 per cent. of which were accounted for by tablet system), being an increase of 376 or 15.5 per cent. over the preceding year.

STATIONS OPEN TO TELEGRAPH SERVICE. The number of telegraph stations totalled 1,464, of which 891 stations accepted public telegrams for despatch. When compared with the preceding year, the figures show an increase of 51 or 3.8 per cent. in the total and of 29 or 3.4 per cent. in the number of stations for public telegraph service.

RETURNS OF MESSAGE TRAFFIC. The number of railway telegrams totalled 40,743,276, and public telegrams 6,504,994, the average number of messages per day per station in operation at the end of the year working out to 80 and 20, respectively. When compared with the preceding year's figures, railway telegrams increased by 2,626,386 or 6.9 per cent., the public by 194,180 or 3.1 per cent. and the total by 2,820,466 or 6.3 per cent.

RECEIPTS FROM MESSAGE TRAFFIC. During the year the Imperial Government Railways received 235,471 *yen* from the Department of Communications as its share in charge for public telegrams, the sum being a gain of 7,136 *yen* or 3.1 per cent. over the returns in the preceding year. On averaging the total receipts per station open to the service at the end of the year, the figures stand at 264,377 *yen*, being an increase of 2,425 *yen* or .9 per cent. as compared with the preceding year.

2. ELECTRIC OPERATION.

ELECTRIC OPERATION ARRANGEMENTS. The principal arrangements made for electric operation during the year were, for the Eastern Division, the utilization of superfluous current of the Sannai power station for the manufacturing of calcium-carbonate at the Tsuchizaki Works; for the Central Division the laying of power transmission lines between Kamata and Oi, Oi and Eirakucho and Oi and Harajuku, the construction of three transformer stations at Oi, Eirakucho and Harajuku; for the Western Division the creation of

the Himeji transformer station and connected works, the installation and re-location of petroleum motors and generators at the Shimonoseki power station, the installation of steam engines, boilers and generators at the Osaka power station; for the Kyushu Division the equipment of charging apparatus at the train lighting office on the Moji station premises; for the Hokkaido Division the equipment of additional electric lights and connected works on the Asahigawa station premises.

Power and Transformer Stations. At the end of the year 31 power stations were in operation with 43 sets of motors installed therein representing 8,544 h.p., 46 sets of generators developing 6,589.5 k.w., and 88 transformers representing 8,061 k.w. Compared with the preceding year's stock, the motors increased by 3 sets or 7.5 per cent. representing 3,420 h.p. or 66.7 per cent., the generators by 3 sets or 7 per cent. representing 3,274.5 k.w. or 98.8 per cent., and the transformers by 20 sets or 29.4 per cent. representing 5,162 k.w. or 178.1 per cent.

Power Lines. The length of lines for transmission of current supply measured 111 *ri* with the length of wires extending 388 *ri*, being an increase over the preceding year of 30 *ri* or 38.3 per cent. in the length of lines and of 92 *ri* or 31.4 per cent. in the length of wires.

Motive Power. At the end of the year there were 341 motors in operation at 44 stations, developing 3,998,267 watts. Compared with the preceding year, the stations increased by 2, the motors by 88 sets or 34.8 per cent., and the volume of current by 724,632 watts or 22.1 per cent. The relative volume of current supply from the two differnt sources was 86.4 for the self-supply against 13.6 per cent. for the purchase.

Electric Trams. Trams in service numbered 72, motors for running purposes 196 sets developing an aggregate horse power of 9,432, and motors for air-compressing purposes 78 developing 312 h.p. Compared with the preceding year, the trams increased by 3 or 4.3 per cent., the motors for running purposes by 16 sets or 8.9 per cent. representing 752 h.p. or 8.7 per cent. and the motors for air-compressing purposes by 15 sets or 23.8 per cent. representing 63 h.p. or 25.3 per cent.

Electric Lighting. The number of glow lights were 43 066 representing 2,351,906 watts, of which 20,027 or 46.5 per cent. representing 1,138, 989 watts or 48.4 per cent. were fed by current supply from the railway stations. The number of arc lights amounted to 854 representing 507,900 watts, of which 489 or 57.3 per cent. representing 284 995 watts or 56.1 per cent. were fed from the railway stations. Compared with the preceding year, the glow lights increased by 8,059 or 23 per cent. and the arc lights decreased by one or .1 per cent.

Electric Train Lighting. The number of vehicles lighted by electricity were 2,908 with the number of lamps amounting to 347,010, while the number of electric fans fitted aggregated 700 sockets. Motor power equipment comprised 806 generators, 18,263 storage batteries and 37 battery cars. Compared with the preceding year, the trams increased by 273 or 10.4 per cent., the lamps by 3,646 or 17.9 per cent., the electric fans by 242 or 52.8 per cent., the generators by 197 or 32.3 per cent., and the storage batteries by 3,769 or 26 per cent.

Results of Working of Generators. Watts output amounted to 11,731,315 k.w.h., involving expenses of 299 691 *yen* or .0255 *yen* per k.w.h. Compared with the preceding year, the watts output increased by 4,428,600 k.w.h. or 60.6 per cent., and the expenses by 111,252 *yen* or 59 per cent., while the average expenses per k.w.h. decreased by .0003 *yen* or 1.2 per cent.

Results of Working of Transformers. The watts input of 5,994,736 k.w.h. were required for 4,842,836 k.w.h. of the total watts output, of which 92.2 per cent. were supplied from the railway generating stations, the losses incurred in transformation figuring at 82 per cent. The expenses involved by the watts input were 115,857 *yen* (of which 91.7 per cent. were represented by the supply from the railway stations), while the expenses required for transforming operation were 34,255 *yen*, the average per k.w.h. of the watts being .0239 *yen* in the cost price and .0071 *yen* in the transforming expenses. Compared with the preceding year, the watts output increased by 3,122,906 k.w.h. or 181.6 per cent., watts input by 4,072,551 k.w.h. or 311.9 per cent., and the expenses for the watts input by 81,890 in the cost price or 241.1 per cent. and 24,839 *yen* or 263.8 per cent. in the transforming expenses, the latter working out per k.w.h. of the watts output, to .0042 *yen* or 21.3 per cent. in the cost price and the .0016 *yen* or 29.1 per cent. in the transforming expenses, respectively.

Results of Working of Electric Trams. The mileage travelled by cars aggregated 4 687,955 miles, while the current consumed amounted to 5,362,284 k.w.h., of which 3,686,748 k.w.h. or 68.8 per cent.

Results of Working of Electric Locomotives. The mileage travelled by electric locomotives amounted to 87,722 miles, and the mileage of cars hauled thereby to 536,215 miles, the volume of current consumed being 1,642,050 k.w.h. representing 110,202 *yen* in value. Out of the total expenses 52,182 *yen* or 47.4 per cent. were claimed by current supply, 25,452 *yen* or 23.1 per cent. by the upkeep of equipment, the balance 32,568 *yen* or 29.6 per cent. by the miscellaneous disbursements. The current consumed and the expenses per locomotive mile worked out to 18.7 k.w.h. and 1.256 *yen*, respectively.

Results of Train Lighting. The expenses involved in train lighting aggregated 188,704 *yen* which worked out to 98.438 *yen* per vehicle mile.

CHAPTER IX.

FINANCE.

1. REVENUE AND EXPENDITURE ON THE RAILWAY CAPITAL ACCOUNT, ESTIMATE AND SETTLED.

The revenue estimates for the year were 50,315,206 *yen* for the railway capital revenue and 44,332,802 *yen* for the railway stores and works receipts, making a total of 94,648,008 *yen*, and the amount settled against the same were 59,539,043 *yen* and fractions for the railway capital revenue, 43,175,820 *yen* and fractions for the railway stores and works receipts, and 102,714,864 *yen* and fractions for the total, showing a surplus of 9,223,837 *yen* and fractions in the capital revenue and a deficit of 1,156,981 *yen* and fractions in the railway stores and works receipts. Compared with the preceding year's figures, the estimates decreased by 1,717,597 *yen* in the capital revenue and increased by 1,738,798 *yen* in the stores and works receipts, while as regards the amount settled there were shown an increase of 9,588,400 *yen* and fractions in the former and of 9,346,533 *yen* and fractions in the latter items. The gain in the capital revenue was accounted for by an increased appropriation of funds to meet rising expenditure on construction and improvement works, while as regards the stores and works receipts the same phenomenon was attributable to the increased demand for material.

The estimate expenditure as originally prepared stood at 54,843,038 *yen* for construction and improvement expenses, 44,332,802 *yen* for stores and works expenses and 100,000 yen for the redemption of loans, making a total of 99,275,840 *yen*. After adding 14,154,926 *yen* and fractions brought over from the last year's account, the total estimate expenditure for the year amounted to 113,430,766 *yen* and fractions. The amount settled against the same totalled 59,250,901 *yen* and fractions for construction and improvement expenses, 43,439,716 *yen* and fractions for stores and works expenses, 100,000 *yen* for the redemption of loans, and 102,790,618 and fractions for the total, the excess of the estimates over the settled amount being 9,747,062 *yen* and fractions for construction and improvement (which are to be carried forward to the next year's account) and 893,085 *yen* and fractions for stores and works. Compared with the corresponding figures for the preceding year, the estimates increased by 5,642,741 *yen* and fractions for construction and improvement and by 1,738,798 *yen* and fractions for stores and works, while the amount settled increased by 10,050,605 *yen* and fractions for construction and improvement and by 8,799,508 *yen* and fractions for stores and works. The increase consisted of 8,269,652 *yen* and fractions for construction expenses due to the progress of the prescribed works and also of the construction works on the Shibata-Murakami, the Tadotsu-Kawanoe, the Kisarazu-Hojo, the Tsurugo-Shimmaizuru, the Hamada-Yamaguchi and the Masuda-Hagi sections on the one hand and on the other 1,780,952 *yen* and fractions for improvement expenses accountable for the progress of the improvement works, while the gain in the stores and works receipts was chiefly traceable to the expended demand for material. The details are shown below:—

REVENUE ON THE RAILWAY ACCOUNT, ESTIMATE AND SETTLED.

	Estimate	Settled		Balance
	yen	*yen*		*yen*
Railway Capital Revenue	50,315,206.000	59,539,043.316	×	9,223,837.136
Transferred from Railway Profit	10,107,551.000	19,132,058.547	×	9,024,507.547
Debentures	40,000,000.000	5,000,000.000		35,000,000,000
Miscellaneous	207,655.000	406,984.769	×	199,329.769
Proceeds of Public Loans (Short Term Bonds)	—	35,000,000.000	×	35,000,000.000
Railway Stores and Works Receipts	44,332,802.000	43,175,820.988		1,156,981.012
Stores and Works Receipts	44,228,842.000	42,761,916.226		1,466,925.774
Sale of Stores	35,194,624.000	34,467,531.816		727,092.184
Repair of Stores	8,798,656.000	8,138,680.010		659,975.990
Electric Current Supply	235,562.000	155,704.400		79,857.600
Miscellaneous	103,960.400	413,904.763	×	309,944.662
Total	94,648,008.000	102,714,864.304	×	8,066,856.304

Note:—The figures marked with the cross (×) show excess of amounts settled over estimates. This remark also applies to he following tables.

EXPENDITURE ON THE RAILWAY CAPITAL ACCOUNT, ESTIMATE AND SETTLED.

	Brought over from preceding year	At beginning of the year	Actual account at end of the year	Stettled	Balance
	yen	*yen*	*yen*	*yen*	*yen*
Railway Construction & Improvement	14,154,926.199	54,843,038.400	68,997,964.199	59,250,991.924	9,747,062.275
Construction Expenses	7,514,110.835	24,800,000.000	82,314,110.855	28,233,136.948	4,080,973.907
General	54,945.416	206,357.000	163,427.915	143,663.931	19,763.984
Hachioji-Nagoya Line	260,021.932	2,056,315.000	506,029.316	250,126.609	255,902.707
Hokkaido Lines...	254,040.575	4,600,000.000	2,545,172.540	2,104,356.606	440,815.934
Kitakata-Niitsu Line...	564,884.286	316,709.000	2,215,653.415	2,146,279.649	69,373.766
Usa-Oita Line	245,657.012	1,185,000.000	183,190.720	73,632.306	109,558.414
Yamada-Toba Line	130,650.832	300,000.000	37,540.420	33,570.214	3,970.206
Niitsu-Shibata Line	39,424.417	563,332.000	252,496.789	252,397.364	99.425
Miyasaki-Yoshimatsu Line	316,063.623	2,300,000.000	2,034,264.000	1,591,602.687	442,661.313
Boso Line	280,923.572	2,000,000.000	837,222.000	740,177.348	97,044.652
Kogota-Shinjo-Shakata Line	886,235.959	2,200,000.000	3,082,728.000	3,055,556.445	27,171.555
Kagoshima-Sendai Line	261,485.321	2,005,100.000	3,228,194.206	3,109,935.277	118,258.929
Koriyama-Taira Line	23,738.673	250,000.000	1,642,419.530	1,571,595.415	70,824.115
Imaichi-Hamada Line	156,127.898	350,000.000	1,671,932.000	1,395,428.041	276,503.959
Ogori-Yamaguchi Line	115,402.179	374,175.000	472,531.000	394,611.508	77,919.492
Imaichi-Kizuki Line	129,869.957	95,665.000	129,028.000	97,612.661	22,415.309
Oita-Saeki Line	40,877.947	300,000.000	1,670,827.000	1,454,823.877	216,003.123
Kawada-Ikeda Line	11,911.595	200,000.000	744,526.000	715,687.821	28,838 179
Shibata-Murakami Line	—	150,000.000	502,049.266	496,426.137	5,623.129
Tadotsu-Kawanoe Line	—	200,000.000	300,000.000	273,035.013	26,964.987
Kisarazu-Hojo Line	—	170,000.000	392,778.000	207,697.030	185,080.970
Tsuruga-Shinmaizuru Line...	—	120,426.000	300,000.000	83,811.776	216,188.224
Hamada-Yamaguchi & Masuda Hagi Lines	—	229,760.000	334,802.755	131,640.997	203,161.758
Rolling Stock	2,036,394.199	3,127,220.000	4,895,396.958	4,560,985.520	334,411.438
Light Railways	427,099.736	1,500,000.000	2,518,995.000	2,226,581.367	292,413.633
Fukushima-Aomori Line	47,326.498	—	40,528.300	17,646.237	22,882.063
Yatsushiro-Kagoshima Line	238,349.281	—	201,850.310	129,925.097	71,875.213
Fukuchiyama-Sakai-Imaichi Line	350,453.600	—	372,515.204	198,679.381	173,835.823
Fukuchiyama-Sonobe-Maizuru Line	39,017.452	—	41,814.211	19.400	41,794.811
Toyama-Naoetsu Line	555,773.682	—	972,248.000	773,841.114	198,406.886
Okayama-Uno Line	38,435.608	—	33,000.000	1,790.090	31,209.910
Improvement Expenses...	6,640,815.344	30,043,038.000	36,683,853.344	31,017,764.976	5,666,088.368
Stores & Works Expenses	—	44,332,802.000	44,332,802.000	43,439,716.959	893,085.041
Stores expenses	—	39,205,221.000	39,092,229.316	38,562,917.286	529,312.030
Works expenses...	—	4,652,621.000	4,766,612.684	4,766,612.684	—
Electric current supply	—	369,005.000	369,005.000	87,373.425	281,631.575
Refunds	—	104,955.000	104,955.000	22,813.564	82,141.436
Redemption of Liabilities	—	100,000.000	100,000.000	100,000.000	—
Total	14,154,626.199	99,275,840.000	113,430,766.199	02,790,618.883	10,640,147.316

The amounts settled and the surplus against the estimates for the continuing expenditure on Capital Account are tabulated below:—

Description	Spread over (fiscal year)	Estimate	Settled	Balance
		yen	*yen*	*yen*
Construction Expenses		252,614,318.000	128,798,701.093	123,815,616.907
General Expenses	1907—24	2,100,288.000	681,422.372	1,418,865.628
Fukushima-Aomori Line...	1907—12	4,177,791.000	2,260,312.671	1,917,478.329
Hachioji-Nagoya Line	1907—13	15,952,505.000	9,980,075.711	5,972,429.289
Yatsushiro-Kagoshima Line	1907—12	6,115,737.000	6,435,653.742	319,916.742
Fukuchiyama-Sakai-Imaichi Line	1907—12	18,694,793.000	19,471,132.582	776,339.582
Eukuchiyama-Sonobe-Maizuru Line	1907—12	5,137,236.000	4,432,953.691	704,282.306
Toyama-Naoetsu Line	1907—12	12,810,107.000	12,499,229.906	310,377.094
Hokkaido-Lines...	1907—14	23,003,647.000	14,917,636.480	8,086,010.520
Kitakata-Niitsu Line	1907—12	7,651,709.000	9,974,578.576	2,457,869.576
Okayama-Uno Line	1907—12	1,936,934.000	2,688,499.949	751,565.949
Usa-Oita Line	1907—13	4,851,035.000	3,833,947.181	1,017,087.819
Yamada-Toba Line	1907—13	1,448,248.000	934,764.208	513,483.792
Niitsu-Shibata Line	1907—12	1,963,332.000	1,595,196.395	368,135.605
Miyasaki-Yoshimatsu Line	1910—16	10,632,577.000	2,925,839.976	7,706,737.024
Boso Line	1910—14	5,587,621.000	2,129,252.771	3,453,367.229

Description	Spread over (fiscal year)	Estimate	Settled	Balance
Kogota-Shinjo-Sakata Line	1910—17	13,486,677.000	4,470,763.252	9,015,913.748
Kagoshima-Sendai Line	1910—14	6,647,285,000	4,508,094.521	2,139,190.479
Koriyama-Taira Line	1911—16	8,002,124.000	1,773,378.839	6,228,745.161
Imaichi-Hamada Line	1911—17	12,814,768.000	1,556,205.784	11,258,562.216
Ogori-Yamaguchi Line	1911—12	674,175.000	589,209.329	84,965.671
Imaichi-Kizuki Line	1911—12	295,665.000	168,261.660	127,403.340
Oita-Saeki Line	1911—16	8,209,323.000	1,744,191.330	6,465,131.670
Kawada-Ikeda Line	1911—14	3,561,634.000	983,776.226	2,577,857.774
Shibata-Murakami Line	1912—16	2,531,758.000	496,426.137	2.035,331.863
Tadotsu-Kawanoe Line	1912—16	2,202,130.000	273,035.013	1,929,094.987
Kisarazu-Hojo Line	1912—18	5,469,026.000	207,697.030	5,261,328.970
Tsuruga-Shinmaizuru Line	1912—19	7,915,463.000	83,811.776	7,831,651.224
Hamada-Yamaguchi & Masuda-Hagi Line	1912—24	23,479,803.000	131,640.997	23,348,162.0 3
Rolling Stock Expenses	1907—24	25,910,827.000	14,320,090.735	11,590,736.265
Light Railways	1911—19	9,485,100.000	2,731,121.253	6,753,978.747
Improvement Expenses		199.651,452.000	100,608,590.632	99,042,861.368
Total		452,265,770.000	229,407,291.725	222,858,478.275

Note:— The gross amount of estimates includes supplementary estimates voted at the 29th session of the Diet. The deficits on the Yatsushiro-Kagoshima, the Fukuchiyama-Sakai-Imaichi, the Kitakata-Niitsu and the Okayama-Uno lines were appropriated from the three items of the Fukushima-Aomori and the Hachioji-Nagoya lines and rolling stock expenses.

2. REVENUE AND EXPENDITURE ON THE RAILWAY REVENUE ACCOUNT, ESTIMATE AND SETTLED

The revenue for the year as originally estimated figured up to 100,092,658 *yen*, which together with 2,325,000 *yen* supplemented and 250,000 *yen* brought over from the last year's account, made up a total to 120,667,658 *yen*. The amount settled against this was 111,272,852 *yen* and fractions, leaving an excess of 8,605,194 *yen* and fractions over the estimates. The expenditure as originally estimated was 88,985,107 *yen* on account of operating expenses, 2,325,000 *yen* for supplementry expenses, 500,000 *yen* for subsidies, 250,000 *yen* brought over from the last year's account and 92,060,107 *yen* for the total. The sum settled against this was 90,890,794 *yen* and fractions for operating expenses, 23,635 *yen* and fractions for subsidies and fractions, and 90,914,429 *yen* and fractions and 90,914,429 *yen* and farctions for the total, leaving a balance of 1,145,677 *yen* and fractions to the credit of the estimates, the surplus in subsidies among them being carried forward to the next year's account.

On comparing the foregoing revenue and expenditure with the corresponding figures in the preceding year, it is found that the estimate revenue increased by 9,225,338 *yen* and the settled revenue by 8,487,761 *yen* and fractions, while the estimate expenditure increased by 7,931,364 *yen* consisting of 7,421,364 for operating expenses and 500,000 *yen* for subsidies, and the settled expenditure by 8,631,502 *yen* and fractions consisting of 9,607,867 *yen* and fractions for operating expenses and 23,635 *yen* and fractions for subsidies. The increase was attributable to the growth of traffic stimulated by the extension of the existing lines and by the opening of new lines on the one hand and on the other to the increased interest on the loans. Details on this account are given as under:—

	Estimate			Settled	Balance
	Original	Supplementary	Total		
	yen	*yen*	*yen*	*yen*	*yen*
Receipts from Operation	100,092,658.000	2,325,000.000	102,417,658.000	111,022,852.924	8,605,194.924
Traffic Receipts	98,277,708.000	2,325,000.000	100,602,708.000	108,901,022.580	8,298,314.580
Passenger Traffic Receipts	50,662,237.000	1,275,000.000	51.937,237.000	56,984,687.850	5,047,450.850
Goods Traffic Receipts	47,615,471.000	1,050.000.000	43,665,471.000	51,916,334.730	3,250,863.730
Miscellaneous Receipts	1,814,950.000	—	1,814,950.000	2,121,830.344	306,880.344
Rentals	465,557.000	—	46,5557.000	636,924.190	171,367.190
Levies from Station Venders	65,267.000	—	65,267.000	63,491.080	1,775.920
Telegraph Charges	235,698.000	—	235,698.000	254,951.180	19,253.180
Rents for Vehicles	118,372.000	—	118,372.000	156,998.380	38,626.380
Receipts from Sales of Stores	170,831.000	—	170,831.000	202.711.078	31,880.078
Receipts from Hotels	38,176 000	—	38,176 000	33,640.850	4,535.150
Bank Interect	493,000.000	—	493,000.000	567,037.640	74,037.640
Miscellaneous	228,049.000	—	228,049.000	206,075.946	21,973.054
Trought over from last year's account	250,000.000	—	250,000.000	250,000.000	—
Subsidies to Light Railways	250,000.000	—	250,000.000	250,000.000	—

	Estimate				
	Original	Supplementary	Actual account at the end of the year	Settled	Balance
	yen	*yen*	*yen*	*yen*	*yen*
Expenses for Operation:—	88,985,107.000	2,325,000.000	91,310,107.000	90,890,794.377	419,312.623
Working Expenses	51,294,023.000	1,100,000.000	52,394,023.000	52,320,976.032	73,046.968
General Expenses	1,869,888.000	300,000.000	1,711,098.956	1,702,985.809	8,113.147
Maintenance of Way & Works	10,608,662.000	250,000.000	11,352,503.478	11,352,503.478	—
Transportation Expenses	13,575,446.000	200,000.000	13,425,446.000	13,404,770.232	20,675.768
Maintenance of Rolling Stock	7,294,212.000	350,000,000	7,644,435.469	7,644,435.469	—
Traffic Expenses	13,680,577.000	—	14,102,347.151	14,102,347.151	—
Hotel Expenses	40,464.000	—	40,464.000	33,720.070	6,743.930
Shipping Expenses	1,666,151.000	—	1,646,151.000	1,617,893.621	28,257.379
Additional Expenses	2,150,000.000	—	2,070,000.000	2,060,743.256	9,256.744
Subsidies to Relief Association	254,644.000	—	270,681.946	270,681.946	—
Rents for Leased Line	153,979.000	—	130,895.000	130,895.000	—
Interest Charges for Loans	34,364,226.000	1,225,000.000	35,589,226.000	35,572,603.245	16,622.755
Interest on Capital	34,129,007.000	1,109,000.000	35,251,819.516	35,251,819.516	-
Interest on Loans	100,000.000	116,000.000	158,230.218	141,607.463	16,622.755
Charges for Loans	135,219.000	—	179,176.266	179,176.266	—
Refunds and Advances	3,326,858.000	—	3,326,858.000	2,997,215.100	329,642.900
Refunds	2,261,591.000	—	2,261,591.000	2,164,424.010	97,166.990
Advances	1,065,267.000	—	1,065,267.000	832,791.090	232,475.910
Subsidies	500,000.000	250,000.000	750,000,000	23,635.570	726,364.430

3. THE RESERVE FUND ACCOUNT, ESTIMATE AND SETTLED.

The estimated revenue for the year was 109,310 *yen* and the expenditure same in amount, while no expenditure was settled and the surplus of the same amount was therefore carried forward as revenue to the next year's account.

REVENUE.

	Estimate	Settled	Surplus
	yen	*yen*	*yen*
Reserve Fund	50,000.000	50,000.000	—
Amount brought over from last year's acconnt	1,609,310.000	1,609,310.000	—
Total	2,109,310.000	2,109,310.000	—

EXPENDITURE.

	Estimate	Settled	Surplus
	yen	*yen*	*yen*
Deficit made good	2,109,310.000	—	2,109,310.000

4. CAPITAL ACCOUNT.

Assets and liabilities on the capital account for the year are tabulated below:—

Assets.	*yen.*	Liabilities.	*yen.*
Cash	2,948,016.670	Special Capital	205,343,909.459
Deposits	8,661,712.790	Borrowed Capital	727,327,371.170
Amount receivable	233.750	Public Loans	672,845,066.670
Fixed Capital	915,163,003.362	Debentures	40,714,104.500
Stores	8,688,526.286	Debts devolved from the Nationalized Railways	13,768,200.000
Works Account	590,754.536	Amount Payable	432,950.095
		Reserve	2,109,310.000
		Suplus in Subsides to Light Railways	726,364.430
		Extra-budgetary Account	112,342,240
Total	936,052,247.394	Total	936,052,247.394

The movement of the fixed capital and the returns thereof at the end of the year is as follows:—

Brought over from last year's Account	855,335,071.764
Increase during the year.	
Construction and Improvement Expenses settled	59,250,901.924
Additional Expenses settled	2,060,743.256
Land acquired, etc.	645,459.990
Decrease during the year.	
Property scrapped, Land transferred, etc.	2,129,170.573
Balance (at the end of the year)	915,163,003.362

The movement of the railway capital during the year and the returns thereof at the end of the year is as follows:—

		Borrowed Capital				
	Special Capital	Loans	Debentures	Debts devolveed from nationalized railways	Total	Grand total
	yen	*yen*	*yen*	*yen*	*yen*	*yen*
Brought over from last Account	185,079,776.408	628,645,030.420	44,636,992.000	13,868,200.000	687,150,222.420	872,229,998.468
Increase during the year						
Railway Capital Revenue ...	19,539,043.316	35,000,000.000	5,000,000.000	—	40,000,000.000	59,539,043.316
Additional Expenses settled ...	2,060,743.256	—	—	—	—	2,060,743.256
Surplus in Stores and Works Account	425,209.171	—	—	—	—	425,209.171
Land transferred, etc.	645,456.990	—	—	—	—	645,456.990
Loans raised for Conversion of Debts	—	39,200,036.250	—	—	39,200,036.250	39,200,036.250
Decreases during the year... ...						
Land transferred, Property scrapped, etc.	2,129,170.572	—	—	—	—	2,129,170.572
Decrease shown by rectification in the amount transferred from the Army Dept. in 1908	277,148.750	—	—	—	—	277,148.750
Loss due to Depreciation of Public Bonds	—	—	—	100,000.000	100,000.000	100,000.000
Amount converted & redeemed	—	30,000,000.000	8,922,887.500	—	38,922,887.500	38,922,887.500
Balance (at the end of the year)	205,343,909.459	672,845,066.670	40,714,104.500	13,768,200.000	727,327,371.170	922,671,280.629

The works and stores account for the year under review left a balance of 425,209.171 *yen*, details being as under:—

Loss	*yen*	Profit	*yen*
Railway Stores and Works Expenses..	43,439,716.959	Railway Stores and Works Revenue..	43,175,802.988
Receipts of preceding year unsettled	582.870	Receipts unsettled	233.750
Expenses unsettled	432,950.095	Expenses of preceding year unsettled	199,812.878
Total	43,873,349.924	Total	933.561.479
Profit	425,209.171	Profit	44,298,459.095
Grand total	44,298,459.095	Grand total	44,298,459.095

5. REVENUE ACCOUNT.

The revenue account for the year under review stands as follows:—

Loss	*yen*	Profit	*yen*
Expenses for Operation.....	90,890,794.377	Surplus in Subsidies to Light Railways (brought over from last year's account	250,000.000
Subsidies to Light Railways.....	23,635.570		
Surplus in Subsidies to Light Railways (carried forward to next year's account)	726,354.430		
Net Profit	19,632.058.547		
Transferred to Revenue Fund....	500,000.000		
Transferred to Capital Account..	19,132,058.547		
Total	111,272,852.924	Total	111,272,852.924

After deducting the refunds and advances, the foregoing figures are specified hereunder:—

Traffic Receipts	Passenger Receipts	55,763,695.350
	Goods Receipts	50,145,597.000
	Sundry Receipts	2,115,345.474
	Total	108,025,638.824
Working Expenses	General Expenses	1,456,400.195
	Maintenence Expenses	11,352,503.478
	Transportation Expenses	13,404,770.232
	Maintenance of Rolling Stock	7,644,435.469
	Traffic Expenses	14,102,347.151
	Hotel Expenses	33,420.070
	Shipping Expenses	1,617,893.621
	Subsidies to Relief Association	270,181.946
	Rents of Private Railways	130,895.000
	Total	50,013,647.162
Expenses for Raiway and Tramway Inspection and Survey		246.585.614
Additional Expenses		2,060,743.256
Interest Charges for Loans		35,572,603.245
Total		87,893,579.277
Profit		20,132,058.547
Surplus in Subsidies to Light Railways (to be carried forward to next year's account)		500,000.000
Net Profit		19,632,058.547

N. B. 500,000 *yen* for subsidies to light railways indicate a balance between 250,000 *yen* brought over from last year's account, 23,635 *yen* for disbursements during the year and 726,364 *yen* carried forward to next year's account

The following shows the average receipts and disbursements per day and per mile a scompared with those for the preceding year:—

	Average receipts and expenses per day		Average receipts and expenses per mile		Average receipts and expenses per day per mile	
	Year under review	Preceding year	Year under review	Preceding year	Year under review	Year under review
	yen	*yen*	*yen*	*yen*	*yen*	*yen*
Traffic Receipts	295,960.652	273,715.350	21,056.629	20,237.121	57.692	55.293
Working Expenses	137,023.691	125,049.880	9,749.249	9,245.552	26.710	25.261
Profit	158,936.961	148,665.470	11,308.380	10,991.569	30.982	30.032

The receipts from the different sources of revenue and a comparison thereof with the preceding year are as follows:—

				Percentage of each item to total		
	Year under review	Preceding year	Inc. or dec. (△)	Year under review	Preceding year	Inc. or dec. (△)
	yen	*yen*	*yen*	%	%	%
Passenger Receipts	55,764,695	52,339,348	3,425,347	.516	.522 △	.006
Goods Receipts	59,145,597	46,329,795	3,815,303	.464	.463	.001
Sundry Receipts	2,115,346	1,510,675	604,671	.020	.015	.005
Total	108,025,638	100,179,818	7,845,820	1.000	1.006	—

The following table shows the total expenses as classified into different items together with the percentage of each item to the total expenses and receipts and a comparison thereof with the preceding year:—

				Percentage of each item to total expenses and total receipts		
	Year under review	Preceding year	Inc. or dec. (△)	Year under review	Year under review	Year under review
	yen	*yen*	*yen*	%	%	%
General Expenses	1,456,400	1,180,459	275,941	.030 .013	.025 .012	.004 .001
Maintenance Expenses	11,352,504	10,156,710	1,195,774	.227 .105	.222 .101	.005 .004
Transportation Expenses	13,404,770	11,690,542	1,714,228	.268 .124	.255 .117	.013 .007
Maintenance of Rolling Stock	7,644,435	6,839,701	804,732	.153 .071	.150 .068	.013 .003

	yen	*yen*	*yen*	%	%	%
Traffic Expenses	14,102,347	12,234,622	1,867,725	.282 .131	.267 .122	.015 .009
Hotel Expenses	33,720	33,021	699	— —	— .001 ▲	— .001
Shipping Expenses	1,617,894	1,518,702	99,192	.032 .015	.033 ▲ .015	.001 —
Subsidies to Relief Association	270,682	245,477	25,205	.005 .003	.005 .002	.001
Rents of Private Railways	130,895	129,604	1,291	.003 .001	.003 .001	.001 —
Electric Expenses	—	1,739,418	1,739,418	— —	.038 ▲ .017 ▲	.038 .017
Total	50,013,647	45,7768,256	4,245,391	1.000 .463	1.000 .455	— .008

N. B. The item "Electric" has been abolished for the year under review and after, the figures given under the same item being apportioned among the other items. That accounts for the absence of this special item and for the corresponding increase in the figures under the other items in the above table.

The receipts and expenses, classified into different items and reduced to proper units, are given as follows, together with a comparison of the results for the last five years:—

	Average mileage worked	Average receipts per mile worked			
		Passenger	Goods	Miscellaneous	Total
	mile	*yen*	*yen*	*yen*	*yen*
1912—13	5,130	10,870	9,775	413	21,058
1911—12	4,950	10,574	9,359	305	20,238
1910—11	4,768	9,749	8,705	283	18,727
1909—10	4,580	9,500	8,193	262	17,955
1908—09	4,513	9,511	7,940	236	17,687

	General expenses		Maintenance expenses		Transportation expenses		Maintenance of rolling stock		Traffic expenses	
	Total receipts and expenses	per 100 *yen* of general expenses	Mileage worked	Average per mile	Running mileage	Average per mile	Running mileage	Average per mile	Total traffic receipts	per ¥ 100 of traffic receipts
	yen	*yen*	*mile*	*yen*	*mile*	*yen*	*mile*	*yen*	*mile*	*yen*
1912—13	158,039,285	.922	5,130	2.213	84,846,040	.207	64,846,040	.118	105,910,292	13.315
1911—12	145,948,074	.809	4,950	4.950	59,972,194	.202	57,972,194	.118	98,669,143	12.400
1910—11	132,585,964	1.068	4,768	2.006	52,949,151	.219	52,949,151	.124	87,991,675	12.835
1909—10	124,297,425	.877	4,580	1.850	50,234,318	.246	50,234,318	.152	81,034,649	12.587
1908—09	122,681,220	.982	4,513	1.724	50,569,162	.251	50,569,162	.151	78,757,806	14.433

The amount of disbursements made on account of the damage caused by the floods and storms during the year under review aggregates 517,897 *yen* and fractions, made up as follows:—

	yen
General Expenses	345.390
Maintenance Expenses	447,799.398
Transportation Expenses	339.360
Traffic Expenses	1,143.600
Additional Expenses	68,269.345
Total	517,897.093

CHAPTER X.

RAILWAY STORES.

1. STORE FUNDS AND MATERIALS ISSUED.

The railway stores purchased during the year aggregated 37,898,577 *yen* in value, being 8,473,495 *yen* more than in the preceding year, while the value of stores left in stock represented 8,688,526 *yen*, an increase of no more than 1,230,959 *yen* over the corresponding figures in the preceding year. This reassuring result was chiefly an outcome of the efforts made for checking the undesirable tendency to keep a large quantity of stores idle in stock on the part of the consuming offices and departments, a tendency which had become evident with the progress of construction and improvement works.

Then as regards the materials handed over to the consuming departments, the returns of the surplus at the end of the year figured up to 12,096,006 *yen* in value, an increase of 4,074 750 *yen* as compared with the preceding year. This is to be accounted for by the fact that, as shown elsewhere, some of the special materials so supplied outstood the year in stock, while a few articles were left unused.

Incidentally it may be mentioned that some of the foregoing stocks have been rendered obsolete on account of the progress of the times while others have been found uneconomical in use.

This is, indeed, a discouraging feature of store management, and steps are therefore about to be taken to effect reform in the mode of management so as to ensure a better use of the store funds.

The store funds existing at the beginning of the year under review, as compared with the end of the same year, are tabulated below:—

Item	At the beginning of the year	At the end of the year	Balance, inc. or dec. (△)
	yen	*yen*	*yen*
Debt.:—			
Stores	7,457,567.026	8,688.526.286	1,230,959.260
Works Account	899,122.317	590 754.536 △	308.367.781
Cash	64,252.411	433,129.897 △	497,382.308
Total	8,420,941.754	8,846,150.925	425,209.171
Credit.:—			
Funds	8,420,941.754	8,846,150.925	425,209.171

N. B. The unsettled receipts and expenses on the above account are turned into cash.

The stock on hand at the beginning of the year under review, as compared with the end of same year, are tabulated below:—

Item	At the beginning of the year	At the end of the year	Balance, inc. or dec. (△)
	yen	*yen*	*yen*
Steel	585,224	711,017	125,843
Best Yorkshire iron	126,770	182,430	55,660
Iron of ordinary quality	259,194	231,187 △	28,007
Plate copper	218,522	110,242 △	108,280
Stays and bar copper	77,917	69,658 △	8,259
Pig iron	139,636	186,429	46,793
Timber	333,992	542,162	208,170
Paints	181,059	215,371	34,312
Oils for loco working	45,333	47,477	2,744
Coal	220,408	202,954 △	17,454
Rails	404,656	415,388	10,732
Fish-plates	83,702	89,153	5,451
Bolts for fish-plates	23,817	32,063	8,246
Dog spikes	20,336	21,63	1,300
Points and crossings	113,909	120,367	6,458
Sleepers	319,396	538,872	219,476
Girders	261,981	266,922	4,941
Springs for rolling stock	170,180	149,370 △	21,310
Tyres	277,095	356,319	79,224
Rolling stock	5,785	5,785	—
Wheels and axles	597,439	518,679 △	76,760
Tube plates and bac plates	65,483	53,775 △	11,708
Steam pipes	215,300	195,187 △	20,113
Cement	7,894	20,808	12,914
Clothing	235,832	667,267	431,435
Miscellaneous	2,466,207	2,737,958	271,751
Total	7,457,567	8,688,526	1,230,959

The materials issued at the end of the year, as compared with the end of the preceding year, are below:—

	Charged to: Expenses for Operation			Construction			Improvement			Total		
	At the end of preceding year	At the end of year	Balance, inc. or dec. (△)	At the end of preceding year	At the end of year	Balance inc. or dec. (△)	At the end of preceding year	At the end of year	Balance, inc. or dec. (△)	At the end of preceding year	At the end of year	Balance, inc. or dec. (△)
	yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
Metals	11,397	14,232 △	2,835	9,954	14,401 △	4,447	54,267	15,788 →	38,479	75,618	44,421	32,197
Timber	31,989	20,266 →	11,723	18,513	13,213 →	4,799	66,174	39,902 →	26,272	116,676	83,480	33,196
Paints	13,681	11,902 →	1,779	12,958	14,528 →	1,570	11,298	14,075 △	2,777	37,937	40,505 △	2,568
Medicines	3,609	1,047 →	2,562	4,037	513 →	3,524	1,484	1,121 →	363	9,130	2,681 →	6,449
Fuel, charcoal, oils, etc.	7,322	67,673 △	60,351	13,916	13,916 △	5,895	3,162	3,436 △	274	18,505	85,025 △	66,526
Waste silk	271	1,264 △	993	2,070	2,633 △	563	186	406 →	220	2,527	4,303 △	1,776
Workshop appliances	134	38 →	96	—	2,956 △	2,956	17,447	25,432 →	7,985	17,581	28,426 △	10,845
Tools and machines	197	111 →	111	2,956	59,098 △	57,232	128,073	142,549 →	14,476	130,946	202,243 △	71,597
Permanent way materials: Rails	134,009	72,602 →	61,407	2,153,743	1,170,769 →	782,974	84,192	610,549 →	223,643	3,121,944	1,353,902 →	1,268,024
Permanent way materials: Fastenings	60,500	76,308 △	15,808	390,118	243,112 →	147,006	177,110	151,069 →	26,041	627,728	470,489 →	157,239
Permanent way materials: Points and crossings	121,784	96,363 →	25,421	137,604	47,658 →	89,946	193,536	121,423 →	77,113	457,924	265,444 →	192,480
Permanent way materials: Sleepers	254,243	242,052 →	12,191	359,539	289,129 →	70,410	283,056	270,258 →	12,798	896,838	801,439 →	95,399
Permanent way materials: Signals	9,850	695 →	9,155	33,124	7,790 →	25,334	18,420	8,595 →	9,825	61,394	17,080 →	44,314
Permanent way materials: Others	117,898	180,079 △	62,181	172,674	88,214 →	84,460	77,224	124,563 △	47,339	367,796	392,856 △	25,060
Permanent way materials: Total	698,284	668,099 →	30,195	3,246,802	1,846,672 →	1,400,130	1,583,538	1,286,457 →	302,081	5,533,624	3,801,228 →	1,732,396
Bridge girders and accessories: Girders	20,239	9,629 →	10,610	1,116,155	646,736 →	469,419	667,563	1,316,317 △	648,754	1,803,957	1,972,682 △	168,725
Bridge girders and accessories: Others	234	1,587 △	1,363	32,294	17,076 →	15,218	63,430	12,129 →	51,301	96,048	30,792 →	75,256
Bridge girders and accessories: Total	20,563	11,216 △	9,347	1,148,449	663,812 →	484,637	730,993	1,328,446 △	597,457	1,900,005 △	2,003,474 △	103,469
Rolling and floating stock and materials	2,608	8,307 →	5,699	4,552	5,410 △	858	61	1,794 △	1,733	7,221	15,511 △	8,290
Cement and lime	28,103	21,900 →	6,203	263,971	324,256 →	239,715	166,970	152,093 →	14,877	750,044	498,249 →	260,793
Spikes, pins, etc.	21,719	24,838 △	3,119	15,153	17,916 →	2,763	16,019	17,761 △	1,742	52,891	60,515 △	7,624
Stone	16,771	16,795 △	24	246,768	225,144 →	21,624	148,125	142,132 →	5,993	411,664	384,071 →	27,593
Service-water materials	3,455	2,106 →	1,349	11,951	6,110 →	5,841	1,017	9,510 △	8,493	16,423	17,726 △	1,303
Building materials	4,268	5,246 △	978	7,832	18,935 △	11,103	24,694	7,498 →	17,196	36,794	31,679 →	5,115
Miscellaneous	212,851	311,456 △	98,605	114,471	104,119 →	10,352	2,642,098	301,844 →	2,340,254	2,969,420	717,419 →	2,252,002
Total	1,077,222	1,186,471 △	109,249	5,418,178	3,344,541 →	2,073,6376	5,600,60	3,490,244 →	2,110,362	12,096,006	8,021,256 →	4,074,750

2. PURCHASE OF STORES.

The total amount of purchase made during the year was 43,363,373 *yen* in value, an increase of 1,290,685 *yen* as compared with the preceding year. The following shows the sum of contracts as divided under the heads of various jurisdictions participant therein.

	yen
Eastern Division	2,237,807.002
Central Division	2,128,745.905
Western Division	1,631,894.372
Kyushu Division	834,649.988
Hokkaido Division	775,723.061
Construction Offices	673,805.840
Head Office	34,080,747.046
Total	42,363,373.214

The principal items of purchase made during the year are shown below:—

Item	Home purchase		Foreign purchase		Total	
	Quantity	Value	Quantity	Value	Quantity	Value
		yen		*yen*		*yen*
Locomotives	36	990,870.000	61	1,830,736.000	97	2,821,606.000
Tenders	36	165,600.000	54	247,926.000	90	413,526.000
Passenger cars & brake vans	299	1,839,344.000	—	—	299	1,839,344.000
Snow ploughs	—	—	1	15,984.000	1	15,984.000
Goods wagons	2,580	2,398,405.500	—	—	2,580	2,398,405.500
Steam motor cars	10	136,140.000	—	—	10	136,140.000
Wheels and axles for vehicles & locos ton	325	51,248.690	4,507	721,730.700	4,832	772,979.390
Tyres for vehicles & locos ton	891	112,816.110	233	28,126.880	1,124	140,942.990
Springs for vehicles & locos ton	—	—	1,161	233,437.000	1,161	233,437.000
Wheel centers	120	3,468.000	—	—	120	3,468.000
Rails & fastenings ton	60,527	4,577,060.905	14	3,590.500	60,541	4,580,651.405
Steel girders ton	8,790	1,304,469.080	8,538	988,782.770	17,328	2,293,251.850
Overbridges ton	846	133,669.970	—	—	846	133,669.970
Turntables & traversers set	40	76,775.000	—	—	40	76,775.000
Points & crossings set	4,488	272,448.700	—	—	4,488	272,448.700
Signals set	814	84,891.000	—	—	814	84,891.000
Coal set	1,625,000	7,388,514.750	—	—	1,625,000	7,388,514.750
Cement cask	174,717	635,614.000	—	—	174,717	635,614.000
Sleepers	3,915,076	2,644,423.906	—	—	3,915,076	2,644,423.906
Brick	31,245,099	472,717.528	—	—	31,245,099	472,717.528
Metals ton	9,884	1,267,538.828	5,821	561,952.390	15,705	1,829,491.218
Mineral oils *koku*	93,108	873,504.575	—	—	93,108	873,504.575
Paints	15,932	1,514.495	—	—	15,932	1,514.495
Varnishes pound	8,056	52,662.430	—	—	8,056	52,662.430
Linseed oil gallon	2,000	3,235.000	—	—	2,000	3,235.000
Zelkowa wood gallon	20,645	408,821.731	—	—	20,645	408,821.731
Clothing square *shaku*	—	1,022,647.667	—	—	—	1,022,647.667
Others	—	9,369,351.879	—	1,443,353.230	—	10,812,705.109
Total	—	36,287,753.744	—	6,075,619.470	—	42,363,373.214

CHAPTER XI.

MAINTENANCE WORKS.

The following is the principal items of maintenance works carried out for tracks, station buildngs, etc. in the various Divisions during the year under review.

1. EASTERN DIVISION.

North Eastern Line.

Omiya Station.—Waiting rooms removed.

Nishinasuno Station.—Yard lines remodelled; loading stage removed.

Nagaoka and Kurosawajiri Stations.—Main building remodelled.

Coal shed at Aomori removed.

Roofs of the Sendai, Shiriuchi and Aomori Enbine Houses, and the tin shop, casting shop and painting shop at the Omiya Works repaired.

Tool-mending shop at the Morioka Works removed.

Tabata Station.—Temporary siding laid.

Akibahara and other stations.—Sidings removed.

Iogawa bridge on the Hiwada-Motomiya Section.—Abutments provided with protections.

Karasuyama roadbridge repaired.

Piers of the Abukawa bridge on the Shirakawa-Izumizaki section and No. 2 Surikamigawa bridge on the Fukushima-Nagaoka Section repaired.

Fascine works and crib works in the compounds of Morioka station for the protection of the shore of the river Sazareishi repaired.

Joban Line.

Kitasenju and other stations.—Yard lines remodelled.

Dredging work carried out and the lock extended in No. 3 Sumidagawa Dock.

Coal landing pier at the river Sumida repaired.

Fukuhara Station.—Water supply appliances renewed.

Hirono and Kido Station.—Main buildings remodelled; loading sheds removed and reconstructed.

Odaka Station.—Main building remodelled.

Iwaki and Ota Stations.—Loading sheds and waiting rooms on the platform repaired.

O-U Line.

Protection work applied to the left side wall of No. 2 tunnel on the Niwasaka-Akaiwa Section.

Cuttings extended near 15 m. 76 ch. and on the left side of the track at 18 m. 77 ch.

Niwasaka Station.—Roofs of main building and engine shed renewed.

Itaya Station.—Main building remodelled.

Shinjo-Shinmachi Section.—Gradient altered for part of the section.

Protection work applied to the retaining wall near 118 m. 20 ch.

Akita and Yokote Engine Houses.—Roofs repaired.

Part of the Akita Engine House, now closed, removed to the coaling shed in the same compounds, and No. 1 temporary shop, also closed, to the coal shed in Shinjo station.

Part of smithy shop at Tsuchizaki Works removed to the store accessory to the shop and the rest to the shed for fire engine, etc.

Gan-Etsu Line.

Retaining walls repaired near 28 m. 36 ch, and three other points.

Shore protection wall near the Harakawa bridge repaired.

Stations on the Koriyama-Kitagata Section.—Platform repaired.

Yamagata Station.—Yard lines remodelled; loading stage and shed for same removed.

Wakamatsu Station.—Yard lines remodelled.

Yamato Station.—Loading shed removed and repaired.

West end of the Numakami tunnel and the snow screen at Nagamine repaired.

Horiuchi-Yamato Section provided with temporary fences for protection against snow.

Takasaki and Shin-Etsu Lines.

Usuigawa Bridge on the Iizuka-Annaka Section provided with fascine works.

Sobu Line.

Dock in the compounds of Ryogokubashi station dredged.

Chiba and Sakura Stations.—Platform sheds repaired.

Honchiba Staton.—Engine shed repaired.

Wooden girders of the Kisada and 19 other culverts replaced by iron girders.

2. CENTRAL DIVISION.

Tokaido Line.

Shimbashi Station.—Work shop provided with a shed for materials.

Yokohama Station.—Crane transplanted and repaired.

Matsuda Station provided with an over-bridge.

Iwabuchi Station.—Moorings dredged.

Besides the above various other works were carried out on this line, due to an unusual

briskness of traffic which distinguishes it from any other line.

Yamanote Line.

Osaki-Meguro Section.—Road bed repaired.

Mejiro Station.—Road bridge repaired.

repaired.

Yokohama Line.

Repair of road beds, renewal of sleepers, etc. carried out.

Central Line.

construction of the Yokobuki tunnel continued from the preceding year completed.

Kokubunji Station.—Main building remodelled.

Repair work carried out to the Itsuki tunnel and No. 2 Shirasaka tunnel on the Shinonoi-Shiojiri Section.

No. 1 Kurashikagawa bridge reconstructed.

Shin-Etsu Line.

Niitsu Station.—Main building remodelled and enlarged.

Nagaoka Station.—Turn-table reconstructed.

Tsukayama No. 2 and three other tunnels repaired.

Snow screens repaired at 96 m. 52 ch. from the Takasaki starting point and 7 other points.

Shinmachi and 11 other culverts.—Wooden wing-walls replaced by stone ones.

Hokuroku Line.

Tsuruga Station.—Main building repainted.

Imajo Station.—Main building remodelled.

Fukui and two other Stations.—Official residences removed, reconstructed and repaired.

Kanazawa Station provided with employees' quarters.

3. WESTERN DIVISION.

Tokaido Line.

Kawase and Hachiman Stations.—Main buildings partially remodelled.

Kyoto Station.—Shed for platform repainted.

Osaka Station.—Platform sheds repainted; freight office remodelled; goods store transplanted from the Fukuchiyama Construction Office and repaired; carpentry shop transplanted from the Nijo Station and reconstructed into No. 3 freight shed.

Kobe Station.—Tin shop and shed for cars in course of construction transplanted from the Hyogo Works, now closed, and reconstructed, the former into freight office and, the latter into goods shed.

Iron girders of the Aichigawa bridge on the Kawase-Notogawa Section, Katsuragawa bridge on the Kyoto-Mukobimachi Section and Kamiyodogawa bridge on the Fukida-Osaka Section repainted.

San-yo Line.

Takatori works.—So. 2 store in the Nijo station and Koide store in the Hyogo Works, now closed, was tranplanted, and reconstructed into the store accessory to the office of the present Works.

Akashi Station.—Overbridge partially reconstructed.

Hyakkengawa bridge on the Seidaiji-Okayama Section and the bridge on the Asa-Isa Section repainted.

Itozaki Station.—Water reservoir deepened.

Dredging work carried out under the Hiroshima pier.

San-yo Hotel.—Inquiry office enlarged.

San-in Line.

Nijo Station.—Smithy shop removed and reconstructed into quarters for employees in charge of the engine house.

Fukuchiyama Station.—Buildings formerly used as the Construction Office removed and reconstructed into the out-office of the Way and Work Section and employees quarters.

Box drains 1 m. 68 ch. from the Sakai starting point and 43 other places repaired.

Kansai Line.

Koriyama Station.—Main building of Sumiyoshi station now closed on the Tokaido line transplanted and reconstructed into the main house of the present station.

Minatomachi Station.—Electric Communications Staff's quarters remodelled into employee' quarters.

Hirano and Yokkaichi Stations.—Overbridges reconstructed.

Horyuji Station.—Revetment walls reconstructed.

Yoshinoguchi Station.—Main building reconstructed.

Iron girders of the Ibigawa bridge on the Nagashima-Kuwana Section, the Kizugawa bridge on the Okawara-Kasagi Section, and the Mamiyagawa bridge on the Miyagawasuji-Mukaibashi Section, repainted.

Yokkaichi Station.—Canal dredged.

Retaining wall reconstructed near 16 m. on the Wakayama line.

Fukuchiyama and Bantan Lines.

Itami Station.—Main building remodelled.

Tamba, Takeda and Kuroi Stations.—Main buildings reconstructed.

Hasegawa Station.—Main building reconstructed.

Ikeda Station.—Revetment wall of the platform reconstructed.

Retaining wall on the left side of the track near 23 m. 34 ch. on the Bantan Line provided with protection.

Hiroshima Line.

Kamoshima Station.—Main building remodelled.

4. KYUSHU DIVISION.

Kuramoto Station.—Main building and platform shed reconstructed.

Kagoshima Line.

Dredging work carried out to the foreshore of the landing place for ferry service.

Rails on the Okura line removed.

Kokura Works.—Roof of the painting shop repaired; store and 4 other buildings repaired.

Tosu Engine House.—Roof repaired.

Nagasaki Line.

Shore protection wall and wing wall for the drain repaired near 85 m. on the Kikitsu-Okusa Section.

Nagasaki Station.—Yard lines rearranged.

Sasebo Station.—Main building and platform shed repaired.

Hoshu Line.

Iron girders of the bridge 0 m. 14 ch. 90 lin. and 36 other bridges repaired.

Retaining wall repaired near 10 m. 25 ch. on the Tagawa line.

Chikuho Line.

Gotoji Station.—Main building remodelled.

Wakamatsu Station.—Shore protection wall at the pier repaired.

Iron girders of the bridges on the Wakamatsu-Kamiyamada Section, and on the branches, repaired.

Nakaizumi and Nogata Station.—Restoration work made to the depressions on the lines.

Kobukuro Station.—Main buildig reconstructed.

5. HOKKAIDO DIVISION.

Hakodate Line.

Wooden pier for land and sea connection remodelled.

Snow screens repaired at 77 m. 66 ch. from Hakodate and 14 other point.

Kozawa Station.—Main building remodelled.

Rails removed on the section between 10 m. 12 ch. and 10 m. 25 ch. and three other sections.

Iwamizawa Station.—Main building remodeled.

Saporro and two other Stations.—Weigh-bridges reconstructed.

Sapporo Station.—Roofs of the engine house and the store repaired.

Toyohira river dredged.

Sakushikotonigawa and 30 other bridges on the Sappore Section repainted.

Iwamizawa Works.—Roof of the casting shop repaired.

No. 2 road bridge on the Iwamizawa-Ikushunbetsugawa Section reconstructed.

Foot-boards provided for the viaduct in the Hanazono Street, Otaru.

Muroran Line.

Part of the Muroran and Yubari Line additionally ballasted.

Embankment for the track repaired from 83 m. to 85 m.

Kuriyama Station.—Goods store remodelled.

Oiwake-Kawabata Section.—Worn-out rails removed.

Oiwake Station.—Roof of No. 1 Engine shed repaired.

Oiwake Section—Iron girders of the Shiabiragawa and 12 other bridges repainted.

Kushiro Line.

Atsunai-Otobetsu Stations.—Main buildings remodelled.

Accommodation for workmen at 109 m. 10 ch. from the Sorachibuto starting point removed to the premises of Ochiai station and remodelled into accommodation for firemen.

Iron girders of the Tokachigawa and 5 other bridges repainted.

Soya Line.

Wassamu Station.—Main building repaired and remodelled.

Abashiri Line.

Various works necessary for the maintenance of tracks and stations carried out.

CHAPTER XII.

MAINTENANCE AND ADDITIONAL WORKS INCIDENTAL TO NATURAL DAMAGES.

The following is a brief abstract of the more important items of maintenance and additional works due to natural damages.

1. EASTERN DIVISION.

North Eastern Line. Consequent upon the damages caused by the rain storm in August, restoration work was carried to road beds and embankments at various points on the Koshikawa-Tsukigi Section. The rest of the work undertaken on this line consisted of restoration of the crib work for the river Shiraishi near 193 m., of the protection work for the south side abutment of the Sugawa bridge on the Kanayagawa-Fukushima Section, of the fascine work around the piers of No. 3 Surkami bridge and under No. 1 Surikamigawa flood opening, of the wingwalls for the Shishigawa bridge and two other places, and of the roof of the freight shed at Aomori station.

Joban Line. Due to the damage caused by the flood in August restoration work was carried out to the cuttings, embankments, retaining walls and road beds on the Kusano-Namie Section, the wingwalls for the abutments of bridges and culverts at Shimizubori and other places on the Namie-Kodaka section, while protection was made for the foundation of these bridges and culverts.

Gan-Etsu Line. Due to the damage in June and August emergency work was carried out for repair to the embankments, retaining walls, bridges and culverts and followed by restoration works comprising, among others, those to the wingwall for the Daiyagawa bridge, Minamotobashi road bridge over the track, shore protection wall near the Harakawa bridge, winkwall for the water course near 25 m. 9ch. and two other points, and the enlargement of the Matsunosawa culvert near 52 m. 14 ch. Besides these were carried out in consequence of the damage caused by the storm various restoration works of which the more important ones were restoration of snow screens on the Otera-Hirota Section, of the roof of the car shed in Wakamatsu station, of the waiting room on the platform in Shiokawa station, and various buildings in the compounds of Horiuchi and Yamato stations.

O-U Linee. Consequent upon the damage caused by the flood in Juiy restoration work was carried out to the wingwall for the Yuzawagawa bridge on the Innai-Yokobori Section and to the Mitsumenaigawa bridge on the Owani-Hirosaki section, while the water course leading to the Sannaigawa Generating station was reconstructed. Besides these was also undertaken, due to wind damage, restoration of the stations on the Niwasaka-Yonezawa Section, various buildings in the compounds of Itaya station and the snow screens on the Toge-Seki Section.

Sobu Line. Due to the flood damage in June restoration work was carried out to the cuttings and watercourse on the Tsuchiki-Oami Section besides those to various station buildings.

2. CENTRAL DIVISION.

Tokaido Line. Work continued from the preceding year was completed as regards the construction of the cross-dikes for the Sako river on the Yamakita-Suruga Section, the renewal and extension of the yamagawa bridge on the Fujieda-Shimada Section and the restoration of the shore protection wall and cross dikes. Consequent upon the rain storm in September which inflicted more or less damage throughout the line, were carried out emergency work to the revetment walls in the compounds of NaNgoyako station and on the Maizaka-Washizu Section whch were soon followed by restoration work.

Central Line. Repair of the shore protection wall near 28 m. on the Otsuki-Hatsukari Section, shore protection wall and road bed and pitching near the flood opening on the Nirazaki-Ryuo Section, and the stone wall at Hahazawa on the Kobuchizawa-Fujimi Section, and the protection work for the hillside which suffered collapse, and the restoration of the shore protection wall near 48 m. 43 ch. and one other place on the Kozoji-Tajimi Section, all continued from the preceding year, were complete. Besides these were also carried out emergency work followed by restoration work to the embankment and cutting on the Shinonoi-Shiojiri Section which had been destroyed in consequence of the torrential rainfull in August, as was also to Chigusa station damaged by the rain storm in September.

Shin-Etsu Line. Restoration work to the spot of collapse near 10 m. 30 ch. on the Okayama-Nihongi Section, continued from the preceding year was completed, while emergency work followed by restoration work was carried out to the wingwall and embankment for the Susohanagawa bridge on the Saigawa-Nagano Section, to the abutment of the culvert over the water course

on the Yoshida-Toyono Section, to the embankment, shore protection wall and pitching for the river Torii on the Toyono-Mure Section, the wingwall and shore protection wall for the Inarigawa bridge on the Takata-Arai Section, the abutment and wigwall of the culvert over No. 1 Yanaida water course, the embankment for the track near the river Saikatsu on the Hanyuda-Yashiroda Section, and the cutting near 7 m. 78 ch. from the Naoetsu starting point which had suffered more or less damage by the heavy downpour in July. As for the Sekigawa bridge of which iron girders, shore protectin wall, embankment and wingwall had been washed away and abutment fell, it was impossible to apply an emergency work owing to the damage being too great, so that travellers were made, pending the execution of the restoration work, to go on foot as far as 92 m. 53 ch.

Hokuroku Line. Due to the damage in July emergency work followed by restoration work were carried out to the Yamane flood opening and to the abutment, wingwall and embankments for the Yoshinogawa culvert, etc. on the Uotsu-Mikkaichi Section, and the Odate bridge, Yokogawa flood opening, the embankment between the Yohachikawa bridge and the Ueno culvert, and near the Nakahara culvert on the Iriyoshi-Tomari Section.

3. WESTERN DIVISION.

San-yo Line. Consequent upon the damage caused by the heavy rainfall were carried out the repair of the cutting and retaining wall near 210 m. 42 ch. the extension and reconstruction of the retaining wall and stone wall for drains, and the removal of the debris on the cutting on the Uno line.

San-in Line. Due to the damage caused by the flood late in September were carried out the removal of debris on the cuttings near 64 m. 21 ch. and 7 other places, the recutting of the cutting near 145 m. 4 ch. and near 129 m. 39 ch. 50 lin., the reconstruction of the Idegawa open drain near 144 m 37 ch. 41 in. the Kawadagawa culvet and the Yamadagawa flood opening on the Kasuzumi-Yoroi section into bridges, the reconstruction and extension of the Namazugawa bridge, while restoration work was carried out to the retaining wall near 80 m. 7 ch. to embankment near 84 m. 60 ch., to the side slope of the embankment between 93 m. 30 ch. and 94 m. 40 ch, to the wing wall of Nos. 1 and 2 Moritsugawa bridges and Naragawa bridge, recontruction and extension work to the Suya flood opening and No. 2 Wada culvert on the Kinosaki-Takeno Section, to the shore protection wall of the Satsugawa bridge on the Takeno-Satsu Section, to the waiting room and cabin for water supply in the Satsu station, to the Kasedagawa flood opening on the Yura-Hachiman Section, to the embankment for the track between 157 m. 41 ch. and 157 m. 64 ch. 8g lin. to the abutment of the Tajimigawa bridge on the Kutani-Hamasaka Section, to the wing wall of the Aitanigawa bridge on the Igumi-Iwami Section.

Kansai Line. Due to damage caused by the rain storm in September the main building of Yokkaichi station was remodelled and repaired, while restoration work was carried out to the platform shed in Yamada station and the goods shed in Kuawna station.

Sanuki Line. An emergency work followed by restorations work was applied to the Nishi-Mizukoshigawa and Higashi-Mizuoshigawa bridge on the Marugame-Utatsu Section, to the Tsuzumioka culvert on the Kamogawa ambankments on the various sections, etc.

Tokushima Line. The whole line being fooded over in consequence of the heavy rain fall in September, emergency earthwork was carrie dout and ballasts additionally supplied where they had been washed away.

Kurayoshi Light Railway Line. The Span-widening of the Kawaradegawa and one other open culvert on the Kamii-Kurayoshi Section was completed while the renewal of the piers of the Takedagawa bridge on the Kamimasu-Kaminada Section is still in progress.

4. KYUSHU DIVISION.

Kagoshima Line. Repair work was made to the embankment on the Angagawa-Yahiro Section, to the retaining wall in the compounds of Kurume Station, while restoration work was carried out to the track 101 m. 75 ch. 40 lin. and 14 other places and the cuttings at 114 m. 34 ch. and three other points on the Kagoshima main line, which were destroyed by the flood in July; and also to the track near 210 m. 52 ch. and three other points which suffered damage in consequence of the flood in September.

Nagasaki Line. Repair work was carried out to the retaining wall on the left side of the track near 22 m. 2 ch. on the Miyachi branch and to the cutting on the right side of the track near 6 m. 24 ch. on the Imari Lne.

Hoshu Line. The work carried out on this line comprised the removal of the debris on the cutting 51 m. 28 ch. and an emergency work applied thereto, the construction of stone walls for the drain near 51 m. 30 ch. the protection work to the side slope of the cutting near 59 m. 28 ch. and similar work to the embarkment at 61 m. 58 ch. and one other point.

Chikuho Line. Pitching was provided for the base of the piers of the No. 2 bridge on the Kodake-Namazuta Section.

Miyazaki Line. Restoration work was carried out on the Kyomachi-Miyakonojo section in consequence of damage caused by the flood.

5. HOKKAIDO DIVISIDN.

Hakodate Line. Restoration work carried out to the crib work and fascine work for shore protection near the Sorachigawa bridge which had suffered damage from the flood, and to the main building of Oshamanbe Station which had been destroyed by fire. The rest of works consisted of the restoration work to the stone crib work for shore protection near 47 m. 74 ch. from the Hakódate starting point, to the shore protection for the river Yurabe 51 m. 22 ch. 25 lin. to retaining wall on the Otaru-Zenibako section, to othe retaining wall on the premises of Otaru station, etc.

Muroran Line. Restoration work was carried out to the waiting room of Muroran station destroyed by fire and to the iron pipe for water supply in the compounds of the same station.

Kushiro Line. Due to the damage caused by the flood restoration work was carried out to the shore protection embankment for the Chubetsu river.

CHAPTER XIII.

ADDITIONAL WORKS.

The principal items of the additional works carried out to the tracks and stations under control of the respective Divisions during the year under review will be mentioned below:—

1. EASTERN DIVISION.

North Eastern Line.

Ueno Station.—Plaform shed enlarged; shop for mending electric machines partially reconstructed and enlarged; car cleaning stage additionally provided.

Omiya Works.—Drain pits additionally provided in the painting shop.

Tochigi and two other Stations—Loading stages increased.

Akabane and 10 other Stations.—Sidings additionally laid.

Akihabara Station.—Goods roads provided with pavements.

Cuttings extended and stone walls provided for same near 150 m. 40 ch. and one other place.

Retaining walls extended near 170 m. 56 ch.

Wing-walls of the Shiraishigawa bridge protected.

Under drains reconstructed into culverts 185 m. 20 ch. and two other places.

Culverts constructed 186 m. 63 ch.

Kuroiso and 14 other stations.—Platforms enlarged.

Kuroiso and Shirakawa Station.—Interlocking apparatus installed.

Nishinasuno Station.—Plaform shed enlarged.

Yabuki Station.—Waiting rooms increased.

Fukushima Engine House.—Oil shed added.

Shiroishi Station.—Coal stage provided.

Masuda Station.—Overbridge provided.

Hanaizumi and two other Stations.—Platforms and loading stages increased.

Shiogama Station.—Stand pipe and plugs provided.

Morioka Works.—Provisional can shop provided; shore protection wall and fascine work for the river Sazareishi extended.

Base of the piers of the Nouchigawabashi bridge on the Nouchi-Uramachi section strengthened.

Two bridges constructed on the Karibazawa-Asamushi Section.

Nobechi Station.—Pillars and plugs for water supply and ash pits provided.

Aomori Station.—Waiting rooms and No. 2 platform shed enlarged.

Joban Line.

Sumidagawa Station—Office room provided.

Tsuchiura Station.—Official residences constructed.

Sukegawa Station.—Main building enlarged.

Takahagi Station.—Overbridge reconstructed.

The above work were all continued from the preceding year while those mentioned below have been started during the year under review.

Sumidagawa Station.—Coal piers reconstructed and extended; store accessory to Account Section reconstructed and enlarged.

Tsuchiura and 6 other Stations.—Sidings additionally installed.

Nakaso Station.—Overbridge provided.

Haramachi Station.—Interlocking and signal apparatus additionally installed.

O-U Line.

Yonezawa Station.—Coal shed increased; sidings additionally laid in connection with the remodelling of the yard lines.

Niwasaka and two other Stations.—Sidings additionally laid.

Kanai and two other Stations.—Goods shed enlarged.

Hirosaki Station.—Stand pipes and ash pits accessory thereto increased.

Akita Station.—Meeting place constructed.

Sannaigawa Power Station.—Official residences constructed.

Tsuchizaki Employees' Quarters accessory to Account Section.—Charcoal Shed constructed.

Wingwalls of the culverts 197 m. 54 ch. and 10 other places reconstructed.

Gan-Etsu Line.

Retaining walls and pitchings additionally constructed near 28 m. 30 ch. and three other places.

Blind drain on the cutting constructed 51 m. 70 ch. and one other place.

Yamagata Station.—Loading stage additionally constructed.

Wakamatsu and Shiokawa Stations.—Sidings additionally laid and waiting rooms constructed.

Takasaki and Shin-Etsu Lines.

Ageo and three other Stations.—Goods roads provided with pavement.

Jimbohara Station.—Sidings additionally laid.

Takazaki Section.—Out-office constructed.

Annaka Station.—Overbridge provided.

Yokogawa Station.—Plaform shed enlarged.

Retaining walls and pitchings constructed near 19 m. 20 ch. on the Yokogawa-Kumanodaira Section.

Sobu Line.

Honjo-Kameido Section.—Gradient altered.

Funabashi and 4 other Stations.—Main buildings reconstructed and enlarged.

Honchiba and Sakura Stations.—Sidings additionally laid.

Hyuga Station.—Platform reconstructed.

Honno Station.—Under drain reconstructed into culverts.

Mikado flood opening reconstructed.

2. CENTRAL DIVISION.

Tokaido Line.

Shimbashi Station.—No. 1 official residence enlarged.

Shinagawa Station.—Accommodation for trainmen constructed.

Fujisawa and 5 other Stations.—Sidings additionally laid.

Kozu Station.—Luggage room constructed.

Fuji Station.—Weigh-bridge provided.

Road bridge over the line constructed near Ejiri Station.

Nagoya Station.—Main building partially reconstructed.

Atsuta Station.—No. 2 type interlocking apparatus provided.

Ogaki Station.—Smithy shop accessory to the engine house constructed. No. 2 type interlocking apparatus additionally provided.

Horinouchi Station.—Stand pipes additionally provided.

Guard rails laid on the Oigawa and 7 other bridges.

Central Line.

Nakano and three other Stations.—Sidings additionally laid.

Kofu Station.—Meeting place for employees constructed, arch culverts over the water course additionally laid; drains constructed.

Hinoharu Station.—Pillars for water supply provided.

Retaining walls constructed near 72 m. 60 ch. from the Hachioji starting point.

Osono Station.—Platforms enlarged.

Shin-Etsu Line.

Nagano Station.—Sawing shed constructed; sidings additionally laid.

Nihongi Station.—Spur line laid.

Niitsu Station.—Boarding house for employees constructed.

Kashiwazaki Station.—Equipments made for connection with the Echigo Railway.

Snow screens newly constructed at three points and additionally constructed at another point.

Hokuroku Line.

Kanazawa and two other Stations.—Sidings additionally laid.

Tsuruga Station.—Goods agents' quarters constructed.

Dobashi and three other Stations.—Platforms reconstructed.

Takeu and one other Station.—Official residences removed, reconstructed and enlarged.

Kanazawa Engine House.—Weight-bridge for engines provided.

Hontsubata and three other Stations.—No. 2 type interlocking apparatus additionally laid.

Yoshikawa and 5 other stations.—Watchman's cabin at the crossing provided.

3. WESTERN DIVISION.

Tokaido Line.

Kyoto Station.—Iron pipes for water supply laid.

Kyoto and two other Stations.—Sidings laid.

Ajigawaguchi Station.—Filling work carried out to the land for sawmill.

Osaka Station.—Ash pits additionally provided.

Onohama Station.—Loading piers increased; freight shed additionally provided.

San-yo Line.

Hyogo Station.—Loading stages additionally provided.

Himeji Station.—Water tanks additionally provided.

Okayama Station.—Yard lines partially rearranged.

Itozaki Engine House.—Foreman's quarters and stores constructed.

Yokogawa and three other Stations.—Sidings additionally laid.

Cuttings extended near 210 m. 42 ch.

Rubble mounts provided for the stone wall for the shore near 219 m. 3 ch.

Stone walls provided for the base of the shore near 239 m. 67 ch. 50 lin.

Retaining wall constructed near 242 m. 78 ch.

Shimonoseki Station.—Floating pier for connection service between Shimonoseki and Fusan; Assembly hall for employees constructed; Office builling of the Miishi Construction Office now closed transplanted and reconstructed into accommodation for employees.

San-in Line.

Fukuchiyama and one other Station.—Platform shed enlarged.

Yonago Station.—Waiting rooms constructed on the front platform; arrival platform shed in course of construction.

Fukuchiyama and Bantan Lines.

Ichijima Station.—Main building reconstructed and enlarged.

Daifuku tunnel.—Digging carried out inside to make formation level.

Kansai Line.

Minatomachi Station.—Freight shed for No. 1 canal constructed; shed for No. 1 loading stage reconstructed and enlarged.

Pitchings provided for retaining earth near 31 m. 10 ch.

Shimoda Station.—Sidings laid.

Rubble mounds provided for the base of part of the piers of the Kisogawa bridge.

Tokushima Line.

Kuramoto Station.—Official residences constructed.

4. KYUSHU DIVISION.

Kagoshima Line.

Moji Station provided with a hydrant, and the official residenses accessory thereto with fire plugs.

Protection wall constructed along the base of the shore embankment near 7 m. 67 ch.

Tabata Station.—Special equipment made for water supply; coal trolley line laid.

Retaining wall repaired near 1 m. 52 ch.

No. 2 and one other bridge on the Edamitsu-Yahata Section reconstructed into underdrains.

Fukuma and 4 other stations.—Sandtracks laid.

Futsukaichi and one other station.—Stone buffer stop provided.

Retaining wall for the left side embankment near 0 m. 78 ch. and one other point on the Misumi Line reconstructed.

Sumiyoshi Station.—Filling work carried out.

Retaining wall provided for the cutting near 151 m. 18 ch.

Official building of the Kyushu Division provided with plinoleum cloth, and the latrines thereto removed, reconstructed and enlarged.

Dairi Station.—Freight shed enlarged and freight room constructed.

Kyushu Institute for Railway Employees removed and enlarged.

Kurosaki and 4 other stations.—Official residenced erected.

Tosu Station.—Meeting place constructed.

Yabekawa Station.—Filling work carried out and main building enlarged and remodelled.

Nagasaki Line.

Onizuka Station.—Sidings additionally laid and platform extended

Haiki Station.—Platform floor reconstructed.

Shore protection wall repaired and provided with breast wall; and its base strengthened.

Nagasaki Station.—Sidings removed and increased.

Kubota and two other stations.—Official residences erected.

Ochi Station.—Main buildings and latrines reconstructed and enlarged.

Yamamoto Station.—Filling work carried out; main building reconstructed and enlarged.

Hoshu Line.

Pitching constructed 64 m. 39 ch. 50 lin. and two other points.

Retaining walls repaired near 4 m. 72 ch. and one other point.

Yukuhashi Works.—Baths constructed.

Chikuho Line.

Wakamatsu Station and Official residences in its componds provided with equipments for water supply.

Retaining walls constructed between 4 m. 23 ch. and 4 m. 31 ch. 24 lin. on the Ida line.

Nogata Engine House.—Accommodation for employees enlarged.

5. HOKKAIDO DIVISION.

Hakodate Line.

Retaining wall constructed between 37 m. 52 ch. and 37 m. 58 ch. from the Hakodate starting point and on one other section.

Hakodate Station.—Sidings laid;

Onumakoen Station.—Filling work carried out.

Nodaoi Station.—Coal stage and shed for same constructed.

Oshamanbe Station.—Turn-table for engines provided.

Kuromatsuuchi Engine Shed enlarged.

Niki Station.—Sidings additionally laid.

Trees planted for scenic purpose on the section between 17 m. 38 ch. and 18 m. 22 ch.

Chuo-Otaru Station.—Accommodation for employees enlarged and remodelled; fire plug and water supply appliance provided.

Iwamizawa Station.—Shunting line additionally laid.

Horomuku and one other station.—Filling work carried out in the goods shed.

Earthen ware drain pipes laid before Sapporo Station, and other places.

Sapporo Station.—Stores additionally provided.

Distant signal at Horonaibuto renewed.

Ikushunbetsu river provided with crib works for shore protection and retaining fences.

Asahigawa Station.—Protection work carried out for the Chubetsu river in the station yard.

Sapporo Works.—Official residences provided with drains.

Iwamizawa Works.—Ash pits provided.

Muroran Line.

Shibun and 4 other stations.—Lamp room provided.

Kuriyama and one other station.—Signal apparatus reconstructed.

Horobetsu Sand Tracks increased.

Retaining fences for the shore protection and fascine work constructed at Horobetsu.

Rumoi Line.

Retaining fence for shore protection and fascine work made for the river Rumoi.

Kushiro Line.

Crib work made for the river Tokachi above the Tokachigawa bridge.

Shore protection work carried out for the river Sarubetsu.

Kushiro Station.—Sidings additionally laid; greazer's quarters en-

greazer's quarters enlarged and remodelled; well attached to the war supply appliance sunk.

Urahoro and 2 other stations.—Petroleum moter provided.

CHAPTER XIV.

IMPROVEMENT WORKS.

The following is a brief abstract of the more important items of improvement works carried out during the year under review.

1. EASTERN DIVISION.

North Eastern Line. Duplication work between Ueno and Nippori and the construction of a new tram car station at Uguisudani in connection therewith completed, and the removal of the southern signal sabin at Nippori nearly finished.

Renewal of rails between Ueno and Nippori completed.

Protection work for the track alongside of the river Shiraishi in progress.

Tabata Station.—Purchase of land and the diversion of the water course and the highroad carried out in connection with the expansion of the station completed.

Iwanuma Station.—No. 1 interlocking apparatus installed.

Ueno Station.—Track re-arrangement carried out.

Uramachi Station enlarged.

Morioka Station reconstructed.

Omiya Station.—Reconstruction work in progress.

Koriyama Station.—Purchase of land finished and expansion owrk in progress.

Ichinoseki Station.—Enlargement work nearly completed.

Sendai Station.—Purchase of land in connection with expansion of the station in couse of arrangements.

Tsuruta Station.—Track rearrangement carried out.

Nikko Station reconstructed.

Fukushima Station.—No. 1 interlocking apparatus installed.

Ichinobe Station.—Equipment for water supply made.

Shiriuchi Station.—Additional sidings laid.

Ohara signal station reconstructed into a regular station and 4 new signal stations newly constructed.

Kogotai Station.—Works in connection with the removal of the station building in progress.

Omiya Station.—Construction of medical room, lathe shop and tool mending shop completed.

Morioka Works.—Construction of finishing shop and formation of snow guard plantation in progress.

Re-roofing of railway building with incombustible materials carried out and subsidies for similar purpose granted to the inhabitants with their cottages adjacent to the line.

Joban Line. Duplication work was completed except the plate-laying between Kameari and Matsuda on the Kitasenju-Abiko Section, and bridging over the river Edo on the Mahashi-Abiko Section, the Kameari-Kanemaihi and Kitakogane-Abiko Sections being opened for traffic.

Sanuki Station reconstructed.

Mito and Tomobe Stations.—No. 1 interlocking apparatus installed.

Minamisenju-Kitasenju Section.—Strengthening of the girders of the Sumidagawa bridge carried out.

Tsuzura Station.—Additional lines laid and track rearrangement carried out.

Yotsukura-Kunohama Section.—Diversion of the line carried out.

O-U Linee. *Niwasaka-Sekine Section.*—Renewal of rails carried out.

Improvement of the road bed carried out on the Nakagawa-Kanai and other sections.

Shinjo-Shinmachi Section.—A new station constructed.

Tsuchizaki Works.—Construction of carbonic coal factory in progress.

Re-roofing of Yamagata, and Akita stations and of all the stations between Fukushima and Yonezawa, with incombustible materials carried out.

Young shoots planted alongside of the line on the Akaiwa-Nukanome, Tateoka-Shinmachi, Jumonji-Tomine and Owani-Shinjo Sections with a view to forming snowguard plantations.

Takasaki and Shin-Etsu Lines. *Electrification of the Yokogawa-Karuizawa Section.*—The provision of the water reservoir accessory to the Yokogawa Generating Station continued from the preceding year brought to completion; and the construction of shore protection walls, office building and official residences, mending shop and winch room attached to the electric machine works at the same power station, and of Karuizawa Charging Station, carried out while and the tracks at Karuizawa station rearranged.

Sobu Line. The erection of a new signal station between Chiba and Shikaido continued from the preceding year and the reconstruction and enlargement of the carpenter's shop in the Honjo Works, and the erection of the Ryogoku Gas Pressing Shop brought to completion, while the construction of a dinner hall and the sun the provision of a weigh bridge in the Honjo Works, and the renewal of rails on the Ryogokubashi-China, Soga-Noda and Tsuchiki-Omi Sections still in progress.

2. CENTRAL DIVISION.

Tokaido Line. Laying of iron girders for the Oigawa bridge on the Shimada-Kanaya Section and the Kisogawa bridge on the Kisogawa-Gifu Section was completed while similar work is progress for the Tenryugawa bridge on the Nakaizumi-Tenryugawa Section. Improvement work carried out to the Shimbashi-Hodogaya section consisted of the laying of a new bridge over the river Rokugo and the repair of the existing bridges. Earth work and bridging on the sections 4 m. 19 ch. is now completed, while the platelaying is still in progress. Purchase of land for the section is finished.

The earth work, bridging, etc. on the sections between 12 m. 43 ch. and 14 m. 75 ch. and between 17 m. 75 ch. and 18 m. 10 ch. both started during the year is now in progress. Purchase of land on the sections is finished about 8 parts.

Reclamation work at Shinagawa is completed about 6 parts.

Levelling of ground at the Oi Works completed.

Diversion of the line between Kozu and Numazu.—The route for the construction of the new line has been adopted, but purchase of land is still to be effected.

Improvement of the track.—Span-widening on the Totsuka-Kozu, Fujioka-Iwanami and Kambara-Shizuoka Sections, laying of test rails on Shimbashi-Tamachi, Totsuka-Ofuna, and Okitsu-Kambara Sections, extension of the Kunikawa bridge at Totsuka, construction of a new bridge over the river Hanamizu, laying of additional spans for the Kisogawa bridge and renewal of rails on the Shimada-Kanaya and other section, are completed, while span widening on the Totsuka-Kobe Section, and Sekigahara-Nagaoka Section, alteration of gradient near Urushigawa, and construction of a flood opening are in progress.

Improvement and enlargement of stations.—The work continued from the preceding year, comprising the enlargement of Kozu, Yamakita, Yaizu, Shimada, Toyohashi and Handa stations, earth work in connection with the laying of additional sidings and enlargement work in Nagoya Station, removal of sidings and laying of additional ones, repair of the interlocking apparatus, and provision of additional signal cabins at Omiya Station; and those started during the year, comprising provision of a new signal station between Chigasaki and Fujisawa, enlargement of Ofuna, Suzukawa, Shizuoka and Kisogawa Stations, provision of coal stor-

age in the compounds of Nagoyako Station, laying of shunting lines in Kakegawa Station, were completed, while the enlargement of Nakaizumi and Maizaka stations are still in progress. The installation of No. 1 interlocking apparatus, the provision of a signal cabin, and the construction of a new signal station on the Washizu-Futakawa Section, reconstruction and enlargement of the engine shed in Maibara Station, remodelling of the main building of Gifu station are also in progress.

The works at the Hamamatsu Works to be newly opened was completed as regards the construction of the fitting and lathe shop, and store accessory thereto, dinning room and lavatory for work men and room for boiling water attached therto, construction of accessory buildings to the office, and the provision of water tank and feeding pipes continued from the preceding year was completed while the erection of casting shop and tin shop are in progress. Of the works started during the year under review, the erection of employees' quarters in the fitting and lathe shop was completed; while the construction of official residences and the laying of a connection line remains still to be finished.

Yamanote and Kansai Lines. Purchase of land was carried out in connection with the duplication work.

Renewal of iron girders carried out for the No. 1 Yahatagawa bridge on the Yamanote Line.

Central Line. Provition of a ballast stage in the compounds of Katsukawa Station and a new station between Hajikano and Enzan started from the preceding year completed.

The works started during the present year were finished as regards the laying of test rails on the Iidamachi-Yotsuya Section, on the Yotsuya-Shinanomachi Section on the Yose-Enzan Section and in the Kobuchi and other turnnels, the partial reprecement of 60 lbs. rail with 75 lbs. ones on the Ono-Shiojiri Section, the laying of additional sidings in Kamado station, and the enlargment of Shiojiri of Shojiri and Akeshina Stations while the provision of a new station between Nirazaki and Hino, and of a signal station between Seba and Niekawa, laying of additional sidings in the premises of Kisofukushima and 4 other stations, and the installation of No. 1 interlocking apparatus are still in progress.

Shin-Etsu Line. The works continued from the preceding years were completed as regards the reconstruction and extension of the Chikumagawa and Maejimagawa bridges, the alteration of gradient on the section between 63 m. 30 ch. and 64 m. 5 ch. from the Takasaki starting point, the repair of the road-beds on the section from 10 m. 60 ch. to 12 ch., and 8 other sections, the enlargement of Naoetsu station, the reconstruction and enlargement of Yashiro and two other stations, the laying of additional sidings at Toyono and one other station, the installation of No. 1 interlocking apparatus at Saigawa signal station, etc., while the reconstruction and extension of the Kamikawa bridge is in progress. The replacement of 60 lbs. rails by 75 lbs. rails on the Kakizaki-Hachizaki and other section during the year was completed.

Hokuroku Line. The works started during the preceding year finished as regards the enlargement of Nakanogo station, filling work for part of Tsuruga Station and provision of a new station betwen Matsuzumi and Kanazawa, while the duplication work on the Sakanogo-Tsuruga section is still in progress. Purchase of land remains unfinished.

The work started during the present year were completed as regards the provision of a signal station between Yanagase and Hikida, the laying of shunting line in the compounds of Hikida, the laying of sunting line in the compounds of Hikida station, the construction of Tsuruga Engine House, the laying of additional sidings and the provision of a turn-table in the compounds of Sugitsu Station, installation of No. 1 interlocking apparatus in Kanatsu and Tsubata Stations, provision of a new station between Komate and Mikawa, laying of additional sidings and provision of a pier in Oshima freight office and replacement of 60 lbs. rails by 75 lbs. ones for part of the Yanagase-Hikida Section.

3. WESTERN DIVISION.

Tokaido Line. Renewal of rails on the Kanzaki-Sumiyoshi Section continued from the preceding year was completed while diversion of part of the line between Fukida and Osaka is in progress. Renewal of rails at Otani station, on the Takatsuki-Osaka Section, and Osaka-Nishinomiya section was completed while span-widening work on the Hikone-Kyoto, and Kyoto Kobe section is in progress. The improvement work stated during preceding year was finished as regards Katsuragawa, Ibarakigawa, Tamagawa and 6 other bridges on the Nishinari line, while that of the Yasugawa bridge is still to be completed. The construction of Moriyama station and the enlargement of Sumiyoshi station, continued from the preceding year, was brought to completion. Construction of a line for earth work in connection with the programmed enlargement of Kyoto Station and of piers for the Onohama goods branch were also completed. The works started during the present year was finished as regards the laying of additional sidings and the provision of a signal station between Otani and

Yamashina, while the enlargement of Osaka station is not yet started. Purchase of land is in course of arrangement.

Provision of necessary equipments for Nosato signal station between Osaka and Kanzaki was completed.

Duplication work was carried out for the Noda and Ajigawa section on the Osaka sea and land connection line.

The improvement of the track on the San-yo line contimed from the preceding year was completed as regards the renewal of rails in two tunnels on the Hatsukaichi-Kuba section. Of the similar work started during year, removal of rails on the Hongo-Seijo section, and laying of additional sleepers for the length of 8 m. 24 ch. on the Mitajiri-Shimonoseki section, was finished while the laying of additional sleepers and the span-widening for the length of 29 m. 75 ch. on the Fukugawa-Shimonoseki are in progress.

The renewal of girders for 18 culverts on the Itsukaichi-Tabuse section is not yet completed. Of the improvement of stations continued from the preceding year, the enlargement of Hyogo, Aboshi, Fukuyama, Tatsuno, Konjin, Daimon, Onomichi, Itozaki and Matsunaga stations have been completed while Nijigahama station is in course of construction. Of the similar works started during the present year, the provision of signal stations at Gohara on the Hongo-Kawachi Section and at Kamiseno on the Seno-Happonmatsu section, the enlargement of Kasaoka and Iwakuni Stations, the provision of Nashigahara signal station between Kamigori and Miishi, the removal of official residences at Shimonoseki station, the provision of overbridges for Shioya, Tsuchiyama and Tokuyama station and the installation of No. 2 interlocking apparatus in Tokuyama station have been completed, while the enlargement of Kawachi station, Aritoshi station, etc., and the reconstruction of Egaho signal station into an ordinary station are being carried on.

The improvement works carried out to workshops are completed as regards the provision of water supply applicances and a store at the Takatori Works, both continued from the preceding year, and the construction of official residences at Takatori Works, the transplanting of store from Nijo station to the same Works and its reconstruction into a dining hall and construction of a wheel shop in the Shimonoseki station which were started during the present works. The construction of accommodation for employees and the enlargement of the general station at Takatori Works are still in progress.

Works relating to the landing pier for the ferry service between Shimonoseki and Fusan is in progress.

San-yo Line. The construction of a road bridge at Sijo station and an overbridge at Maizuru station were completed while the improvement of Fukuchiyama station and provision of an overbridge at Kameoka station are in progress.

Fukuchiyama and Bantan Lines. Construction of an overbridge at Itami station was completed and the enlargement of Nitoyono station nearly finished.

Kansai Line. Duplication works.—Purchase of land has been finished for the Osaka-Tamatsukuri Section. The works on the section between 3 m. 57 ch. and 4 m. 70 ch. from the Tennoji starting point prescribed for the first period, those on the section between 4 m. 17 ch. and 6 m. 40 ch. and on the section between 2 m. 18 ch. and 3 m. 57 ch. prescribed for the 2nd, and 3rd periods, respectively, and also the construction of the Yodogawa bridge are in progress. Purchase of land for the Kizu-Nara section was finished and the work thereon subsequently taken in hand. The work on the Tsu-Yamada section comprising the extension of the Shintogawa bridge, the provision of signal equipment and plate laying, was completed.

Improvement of tracks.—The works, continued from the preceding year, comprising the laying of additional sleepers on the Kameyama-Kamo Section and on the Kameyama-Yamada Section were finished. Similar works on the Nagoya-Kameyama section and Kamo-Minatomachi section and re-railing on the Tsu-Rokken section, started during the year, were also completed, while the improvement of tracks on the Sakuranomiya-Hanaten Section is in progress.

Improvement of bridge girders.—Strengthening of the Kisogawa and Ibigawa bridges was completed.

Improvement of stations.—The enlargement of Yokkaichi station continued from the preceding year and that of Imamiya station started during the year were both completed, while similar for Yao, Kameyama and Kizu stations are still in progress. Besides these there were carried out the provision of overbridges at 3 places and the installation of interlocking apparatus at 25 places.

Improvement of Works.—Improvement work was carried out to the work shop in connection with the enlargement of Yokkaichi Station.

Sanuki Line. Replacing of girders was carried out to the Marugame-Takamatsu Section, and No. 2 interlocking apparatus installed in Kokubu and Utatsu stations.

4. KYUSHU DIVISION.

Kagoshima Line. Duplication work on the Ori-Ongagawa Section continued from the preceding year is in progress.

Improvement of tracks.—The provision of a flood-opening at a point 110 m. 0 ch. 20 lin. the erection of retaining walls 156 m. 46 ch. and two other places,

drainage work near Okoba station and the renewal of rails for 18 m. 29 ch. on the Tosu-Kamikumamoto section are also in progress.

Improvement of girders are completed except the renewal of girders for B No. 11 Ogagawa down line on the Orio-Ongagawa Section, and similar work for B No. 9 Chitosegawa bridge.

Improvement of station.—Of the works continued from the preceding year, the enlargement of the Kokura Works is in progress while the enlargement of Futsukaichi station, and the construction of Manda Station were completed. Purchase of land in connection with the enlargement of Moji and Kamikumamoto stations are finished. Of the works started during the year, the erection of Togo, and Koba station, the enlargement of Tobata station and the construction of a pier at the same station, the the enlargement of Moji, Kamikumamoto and Kumamoto and and erection of Kuzuha station, remain still to be finished. Besides these were undertaken a few minor works comprising the provision of overbridges at Udo and Kashii Stations which were completed.

Nagasaki Line. Renewal of rails on the Tosu-Nagasaki section is in progress. The alteration of gradient near B No. 3 bridge on the Matsubara-Omura section and renewal of bridge girders for B No. 11 bridge on the Kanzaki-Saga Section are completed.

Improvement of stations.—The enlargement of Haiki station continued from the preceding year and that of Kanzaki station started during the year are in progress, while similar works for Nagasaki station was brought to completion. The enlargement of Nishikaratsu station now on its second stage has made no progress worth mentioning.

Hoshu Line. Renewal of rails for the length of 5 m. 72 ch. on the Yukuhashi-Saigawa Section was completed.

Chikuho Line. Purchase of land for the Uruu branch continued from the preceding year was finished, while the work on the branch together with the enlargement of Kamimio station connected therewith is in progress.

Improvement of tracks.—Renewal of rails on the Iizuka-Shimoyamada section and the Kodake-Kobukuro section was completed, while the improvement work for the road bed has made no progress worth mentioning during the year.

Improvement of bridge girders.—Renewal of girders for B No. 1 bridge on the Futashima-Orio section is completed.

Improvement of station.—The work prescribed for the 2nd period of enlargement of Nogata station and the laying of additional sidings at Nakaizumi station were completed, while the enlargement of Kodake station is in progress.

Miyazaki Line. No. 1 Nagaegawa flood opening on the Kyomachi-Kakuto Section is in progress.

5. HOKKAIDO DIVISION.

Hakodate Line. The construction of the Kamuikotan tunnel connected with the duplication work and improvement of way and stations on the Temiya-Iwamizawa section continued from the preceding year was completed.

Reclamation work and enlargement of equipments at Temiya, plate-laying in the compounds of Temiya station, and the provision of buoys and pontoons for the overhead pier for loading coal are in progress, while the provision of feed pipes and a weighbridge to the same pier are completed.

The reclamation work at Otaru at the second stage taken in hand during the present year is still in progress.

The improvement of the roadbed between 16 m. 55 ch. 30 lin. and 30 m. 73 ch. 80 lin. on the Hokodate main line is in progress while similar work between 3 m. 42 ch. and 13 other points and the improvement of the track near 0 m. 50 ch. from the Sorachibuto starting point was completed. Similar works started during the presetn year, together with alteration of gradient undertaken for several points on the Hakodate main line, are in progress, while improvement of rails for the sidings at Kucchian station and the laying of additional sleepers were finished. The forming of a snow plantation was completed as regards the cultivation of young shoots. The reconstruction of the Yoichigawa bridge is in progress. The improvement work on the Hakodate-Otaru section was completed as regards Kozawa station, while similar work on the section between 38 m. 68 ch. and 43 m. 45 ch. and the construction of Shiraigawa station during the year are in progress. The improvement of the yard of Kuroiwa station, the provision of a weighbridge to Hakodate station, and the erection of Kayano station, are completed, the first two being continued from the precering year, and the last taken in hand in the present year. The provision of Himegawa signal station between Komagatake and Mori, and of water supply appliances to Guchian station are in progress. Besides these there were carried out the erection of a gas generating station in Iwamizawa station and of a shop for mending electric machines in Sapporo station.

Muroran Line. *Reclamation and expansion work.*—Reclamation of the first ward of the western part, dredging work to the eastern part of Muroran, and plate laying in the compounds of Muroran station, are in progress, while the provision of an overhead piers, and iron pipes for water supply, and removal and reconstruction of the main building of Muroran station were completed. The construction of an engine shed in the compounds of Muroran station

which was started during the year is not finished as yet.

Improvement of tracks.—Improvement of the road bed on the sections between 58 m. 20 ch. and 68 m. 21 ch., and between 76 m. and 78 h. 10 ch. continued from the preceding year, and that on the section 11 m. 40 ch. to 15 m. 40 ch., the laying of sleepers on the Wanishi-Hayaku section started during the year were all finished, while similar work on the Yubari section which was taken in hand during the present year is now in progress.

Duplication work.—The work on the Muroran-Oiwake section was completed as regards the duplication work on the Muroran-Wanishi and Shimizusawa-Oiwake subsections and reconstruction of the bridge over the river Horobetsu, while similar work in the compounds of Yubari station and on the Momijiyama-Shimizuzawa section are in progress.

Improvement of stations.—The reconstruction of the turn-table at Oiwake station and the provision of a generating station to Muroran station were completed.

Kushiro Line. *Improvement of Tracks.*—Improvement of the track near 39 m. 40 ch. from the Kushiro starting point and two other points, bridging at 53 m. 67 ch. 32 lin., improvement of line between 69 m. 60 ch. and 103 m. 50 ch. from the Sorachibuto starting point, all continued from the preceding year, were completed. The work started during the present year prising the improvement of line between 94 m. 66 ch. 67 lin. and 96 m. 61 ch. 67 lin. from the Sorachibuto station, and an alteration of gradient between 10 m. 5 ch. 94 lin. and 75 ch. 48 lij. and two other sections, were completed, while the improvement of the road bed between 57 m. 63 ch. and 558 m. 34 ch. and two other sections, improvement of track near 38 m., improvement of rails on the Ikeda-Atsunai, and Obihiro-Ikeda Sections, and span widening near 54 m. 30 ch. from the Borachibuto starting point are in progress.

Improvement of stations.—Improvement work carried out to the water tank in Urahoro station and to Kushiro station yard both continued from the preceding year and the laying of additional lines in Hombetsu and two other stations started during the year were completed, while the reconstruction of Asahigawa station is in progress.

Abashiri Line. The construction of Oichi station is in progress.

STREET LINE CONSTRUCTION OFFICE.

The works between Shinsenza and Yurakucho on the Street Line were completed as regards the construction of bridges and culverts. The work relating to the outward portion of the main house of the Central station being near completion at the end of the year, the work for the inward structure and various accessory works were successively taken in hand. The construction of entrances and subterranean roads in the station compounds are now in progress except those connected with the main building. The construction of embankments is also in progress.

The construction of the main building at Karasumori station has been taken in hand in the present year. Purchase of land along the line has been partially finished.

The construction of retaining walls and subterranean roads on the Ochanomizu-Manseibashi section has been partially suspended in consideration of the construction of the line between Kajicho and Manseibashi yet to be started.

The erection of Manseibashi station and official residences accessary thereto was completed.

Purchase of land between Ueno, Kajicho and Manseibashi has been nearly finished.

CHAPTER XV.

CONSTRUCTION WORKS.

1. SAN-IN LINE.

The purchase of land for the section was finished.

In connection with the earthwork the construction of Asayama station was taken in hand at an earlier date than originally prescribed, this entailing some alteration in the making of the gradient of the line. The work was nearly completed in June, 1912.

The construction of the main and other buildings at Taisha station continued from the preceding year was completed in July, 1912, while similar work at Asayama station was brought to completion in November of the same year.

2. HAMADA LINE.

1. Imaichi-Oda Section.—The earth and other works on the subsection between 39 m. 20 ch. 8 lin. and 44 m. 40 ch. continued from the preceding year were completed about 9 parts.

The earth and other work on the subsection between 44 m. ch. and 48 m. 62 ch. 87 lin. 9 were taken in hand in May, 1912, and completed about 7 parts. Owing to the presence of clayey earth, cracks appeared on the surface of the cutting in course of construction; consequently, the cutting slope was reduced to one fifth of the original dimensions for part of the section.

The construction of the main and other buildings at Tomoi, Miyae and Minamioda stations, started January, 1913, has made no noteworthy progress on account of the insufficiency of time at disposal.

2. Oda-Hanenishi Section.—The earth and other works on the subsection between 48 m. 62 ch. 87 lin. 9 and 52 m. 57 ch. 87 lin. 9, started July, 1912, were completed about 4 parts.

The track between 49 m. 39 ch. 72 lin. 6 and 49 m. 77 ch. 1 lin. 6 which lay close to the sea was removed by some 1 ch. towards the hillside in order to avoid the destructive effect of waves and also to remove the curves produced in consequence of the diversion of the public road.

In view of the distance separating Oda and Hanenishi stations being a little too great and also of the prospect of steady growth in the volune of traffic in the districts traversed by the line, a new station was constructed between the aforementioned two stations. In consequence some alteration was made in the track.

The earth and other works on the subsection between 52 m. 57 ch. 87 lin. 9 and 56 m. 52 ch. 1 lin. 6 started in September, 1913, were completed about 4 parts. The track between 52 m. 79 ch. 92 lin. 3 and 54 m. 20 ch. 50 lin. 9 being located too close to the sea was removed toward the hillside from fear of damage of waves, while the line between 55 m. 23 ch. 20 lin. and 56 m. 50 ch. adjacent to Lake Hane was transferred to the foot of the hill to avoid the weak soil on which the line had been laid. To meet the future demand for means of traffic by the villages of Hanenishi, Hanenishi station was newly constructed and in conseuence the station hitherto known by the same appellation was renamed Kude.

3. Hanenishi-Asari Section.—The line starts from Kume station, 56 m. 52 ch. from the Yonago starting point, and terminates at Asari station, a distance of 21 m. 15 ch. 25 lin. At the outset the line proceeds south in parallel to the main road as far as Osawa village, and turning right runs across a plain where Ota station is to be located. Then crossing the river Sampei, the line bends to the right and gradually approaches the seashore where it proceeds straight before it crosses the river Shizuma and intersects the main road. On emerging out of the Yumibe tunnel at the foot of the Yumibezaka hill, it follows a western direction running across the river Ohama and past the southern part of Minatomura. Here the line keeps along the road and proceeds towards the coast, on reaching which it departs from the main road and zigzags along a sandy shore bordered by precipitous hills, till after turning left and ascending Akai valley, it arrives at the plateau of Kashio. Thenceforward the line makes a descent till after passing through the Takuno tunnel it reaches Takuno village, from whence the line runs along a high embankment on a gradual descent towards an open field in Niina village where is planned Niina station. Further on, the line crosses the river Niina, passes through the Kamikoji tunnel and runs across a sandhill, before it enters mountain districts where it passes through the three tunnels of Umamichi, Kamihata and Yunosato. In the village of Yunoshita it crosses the river Yunosato and then zigzags along a narrow path at the end of which is to be located Yunosato station. Further on it runs across a corner of the town, passes through the Shichikidani tunnel and turning right runs down Kamanotani valley till it finally emerges upon the seashore via Kamano tunnel. Then it crosses the river Minato, bores through the Imaura tunnel and then after making several more bends enters the village of Kuromatsu. Here the line runs in a curve behind a hamlet towards Tojimura beyond which it proceeds through pine woods and across a sand hill. Thenceforward the line heads west and in parallel to the main road till it finally attains its terminus, Asari station. The section measure 21 m. 15 ch. 25. lin. with the ruling gradient of 1 in 80 and the sharpest curve of 20 ch. radius. Owing to the presence throughout the districts of mountain ranges projecting out into the sea, the line is characterised by a marked abundance of curves, tunnels, cuttings and embankments.

The earth and other works on the subsections between 56 m. 50 ch. and 61 m. 49 ch. 62 lin. 4 and between 61 m. 49 ch. 62 lin. 4 and 66 m. 9 ch. 69 lin. started toward the end of the preceding year, have not yet made progress worth mentioning.

3. YAMAGUCHI LINE. (Ogori-Yamaguchi).

On the completion of the earth and other works in January, 1913, the plate-laying, bridging and ballasting were started in the succeeding month. The enlargement and filling work at Ogori station were completed in September, 1912, and the construction of Yamaguchi station nearly so in February of the present year. With the completion of the provisional equipments in Otose and Yuda station the whole section was opened for traffic on 20th of the same month.

The construction of main and accessory build-

ings of Otose station and the official residence for station master at Yuda station were completed 5 parts with regard to the former and 4 parts for the latter while the construction of a similar building at Yuda station was finished no more than 2 parts.

A branch departing from Ogori some 42 ch. in length was laid for the exclusive purpose of carrying ballasts.

Official residences and accommodation for employees were erected both for temporary use.

Purchase of land on the section was nearly finished.

4. TSUWANO LINE. (YAMAGUCHI-SHINONOME).

Starting from 8 m. 30 ch. where the Ogori-Yamaguchi section terminates, the line proceeds northward along the river Tenjin and then turning right heads north as far as the village of Miyano where is to be located Miyano station. Further on, the line crosses the river Miyano, runs across the plain of Miyanogawara and zigzags among hills till it arrives at the boundary between the villages of Miyano and Sio. Then it passes through the Noguchi tunnel, intersects Nio road and reaches Nio station beyond which it passes through the Kidoyama tunnel. Thenceforward the line proceeds through a reclaimed land and then gradually ascends till it attains Nitanda where the Nitanda tunnel is bored. Passing through the Ohikkoshi and Okochi tunnels the line keeps along hillsides, crosses a stream and makes a slow ascent through a long tunnel at the precipitous pass of Tashiro Toge, emerging out of which it enters the village of Shinonome. Then gradually descending it crosses the 1st, and and 3rd Tashio rivers and also the river Shionome, beyond which turning right it proceeds through the plain of Shinonome till it reaches its termination. The section measures 9 m. 76 ch. 92 lin. 8 with the ruling gradient of 1 in 140 and the sharpest curve of 15 ch. radius. Since the section was mostly located along mountainous districts, a great deal of tough works were experienced such as cutting, bridging, tunnelling, etc. making the section unique in respect to engineering features.

Survey on the section was taken in hand in April, 1912 and finished in August of the same year, while the purchase of land carried on in succession thereto was completed about 7 parts. The earth and other works on the subsection between 14 m. 40 ch. and 18 m. 20 ch. has made no noteworthy progress apart from the boring of tunnels.

Official residences were erected in the compounds of Yamaguchi station, while the building for employer's quarters, now closed, at Shinmachi station on the Yamaguchi line, was transplanted to Miyano station, as also the temporary store at Ogori station to Yamaguchi station. The construction of temporary buildings and other works on the Yamaguchi-Shinonome section started as late as January, 1913, has made no progress worth mentioning.

5. TOYAMA LINE.

1. Toyama-Ichiburi Section.—The remainder work carried out for the present section during the year under review consisted of the provision of a water stand in the compounds of Tomari station, the installation of a double moving lever at Mikkaichi, Ikichi, Iriyoshi and Tomari station, pitching of the upper part of the Miyasaki station building and the erection of paling near 32 m. 72 ch. from the Toyama starting point.

2. Ichiburi-Nobu Section.—The foundation work on the subsection between 56 m. and 58 m. 59 ch. 54 lin. started during the year before last was completed in the earlier part of the present year. Unfortunately, however, a serious damage was wrought upon the track by a heavy downpour in July, 1912, which caused the rivers in the vicinity to swell. A restoration work was speedily carried out together with the reconstruction of the Himegawa flood-opening, the enlargement of the Himegawa bridge, the reconstruction of the Himegawa blood-opening into a bridge and the provision of a new flood opening to the river Suzawa against a similar event in future.

The construction work carried out for this section during the year under review was completed about 5 parts, it comprising the erection of an engine house, main building, official residences, turn-table, coal stage, water stand in enginemen's quarters at Itoigawa station, the construction of main buildings at Oyashirazu, Omi, and Nobu stations and the provision of level crossing, tunnels and watchmen's box and snow screens on the section between Ichiburi and Omi. The remainder work consisting of the construction of official residences at Itoigawa, Oyashirazu and Nobu stations and the sectionmen's quarters on the Itoigawa section

The enlargement of the shed for the loading stage was completed about 5 parts.
at Oyashirazu and Omi stations started toward the end of the year has not made progress worth mentioning on account of the insufficiency of time at disposal.

The plate-laying and ballasting on the Omi-Nobu section were commenced toward the end of the year and is on the verge of completion.

3. Nobu-Naoetsu Section.—Being composed of weak strata, several places on the subseceion between Natate and Naoetsu were provided with retaining walls and blind drains while the cuttings near 43 m. 3 ch. 50 lin., in the compounds of Tsutsuishi station, and in the upper part of the entrance of the Otomari tunnel

the surface of which had suffered collapse were recut. Then a portion of the track was transferred towards the seashore in consequence of damage inflicted upon it by a land slide, and in connection therewith the construction of blind drains, retaining walls, cuttings, etc., were undertaken. They were completed about 8 parts.

The remainder works comprised the construction of stone walls for the side drains near 3 m. 3 ch. and 19 other places, the installation of a double lever at Naoetsu and Natate stations, and the provision of paling around Go station and near 10 m., etc.

The plate-laying and ballasting on the Natate-Nobu section continued fro mthe preceding year was completed.

6. GAN-ETSU LINE.

1. Kitagata-Tokusawa Section.—The work on the subsection between 7 m. 15 ch. and 22 m. 30 ch. continued from the preceding year was completed excepting restoration work carried out to the depressed places 10 m. 60 ch. and the work relating to embankments and cuttings carried out by the Government's hands. The plate-laying was nearly completed as far as 11 m. 45 ch.

The erection of a front platform and latrine at Yamato station and all other construction works were completed.

2. Tokusawa-Omaki Section.—The work on the subsection between 32 m. 30 ch. and 32 m. 16 ch. 50 lin. from the Kitagata starting point and also between 24 m. 75 ch. and 26 m. 64 ch. 50 lin. from the Niitsu starting point continued from the preceding year was completed except bridging, walling, tunnelling, etc. On account of the presence of weak strata the tunnelling made but a tardy progress entailing various alterations in the original plan, they being completed no more than 6 parts. The construction of the Hirase tunnel shew a fair progress despite various inconveniences arising out of the presence of gushing water, the boring, walling and arching works already being brought to completion. The laying of the Fukado bridge over the river Agano undertaken by the Government's hands was finished to the extent of 2 parts.

Plate-laying and ballasting on the subsection between 23 m. 34 ch. and 25 m. 35 ch. was completed.

3. Omaki-Satori Section.—The earth and other works on the subsection between 12 m. 29 ch. and 22 m. 34 ch. were completed. The girder laying connected with the bridging, plate-laying and ballasting started during the preceding year were carried on side by side.

The strengthening of land in the compounds of Isoshima station was nearly completed while the erection of a main building, official residences and other accessory buildings have been brought to a finis.

4. Satori-Niitsu Section.—The remainder work on this section consisting of the construction of an over bridge, front platform, waiting room, turntable, etc., continued from the preceding year and of the construction of a signal station commenced during the present year, were brought to completion. The construction of a round house was completed about 3 parts and that of ash works about 8 parts while the provision of a water feeding equipment carried out in connection with a similar work at Shibata line was nearly finished.

7. SHIBATA LINE (NIITSU-SHIBATA).

On the completion of the work on the subsection between 0 m. and 16 m. 50 ch. towards the end of the preceding year, the plate laying, bridging and other various works were taken in hand and completed on September 2nd, 1912 when the section was opened for service. The provision of water feeding equipment at Siitsu station was also completed as regard the part belonging to this section.

8. MURAKAMI LINE (SHIBATA-MURAKAMI).

The line starts from the centre of Shibata station, 16 m. 17 ch. 80 lin. from the Shibata starting point and terminates at 37 m. 25 ch. from the same starting point, a distance of 21 m. 59 ch. 32 lin. At the outset the line runs on the same route as the Shibata line as far as the north eastern extremity of Shibata station where it breaks off from it and runs towards the village of Konuma. Then intersecting the Marukami road on a road bridge and crossing the river Kaji, proceeds through the village of Kaji and turning left reaches the north-west of Kamidate, where is to be located Kaji station. Then it crosses the river Imaizumi and wends its way straight towards the village of Kanazuka where is planned Kanazuka station. Then skirting the foot of a small hill turns right and proceeding north-west reaches Chujo station to be located north of the town of Chujo amidst cultivated fields. Further on, the line intersects the main

road and crosses the river Tainai beyond which it runs north as far as Hirakida station, and then passing through the village of Kanaya reaches Sakamachi, at the north west extremity of which is to be located Sakamachi station. Beyond the river Arakawa the line turns left and proceeds north, crossing the Murakami road and cultivated fields before it comes to where Iwafune station is to be located. On crossing the rivers Ishikawa and Okawa the line enters the hamlet of Nanaminato where it makes several turnings before it finally attains the town of Murakami in the west of which is to be located Murakami station, the termination of the line lying at a short dstance beyond. The ruling gradient of the section is 1 in 100 and the sharpest curve of 30 ch. rad us.

Survey on the section was taken in hand in April, 1913, and finished in August of the same year.

The construction work on the section started in September, 1912, was completed about 4 parts for the earthwork, about 2.4 parts for bridging and about 3 parts for the construction of culverts.

S. SAKATA LINE.

The line starts from the centre of Sakata station and turning left enters the town of Sakata where it intersects the Akita main road and crosses a small hill in the northern part of the town. Then it turns left and comes on the right bank of the river Mogami where is to be located a goods station devoted to the land and sea connection service. The line measures 1 m. 53 ch. in length with the ruling gradient of 1 in 75 and the sharpest curve of 15 ch. radius. Part of the secton being located in the town of Sakata, the present construction work had to be carried on in connection with the repair work for the mouth of the river Mogami; consequently, the work made but a tardy progress, no more than 2.6 parts being completed during the year.

Purchase of land was finished about 2.4 parts.

9. TAIRA LINE.

1. Koriyama-Kanemachi Section.

The earth and other works on this section, started in August, 1912, were completed about 5.8 parts for earthwork, about 6.2 parts by bridging, about 6 parts for the construction of culverts and about 2.8 parts for that of drains and tunnels.

The construction of a main building, latrine, lamp room, freight shed at Miharu station has made no noteworthy progress owing to the insufficiency of time at disposal.

Purchase of land for the section was finished about 8 parts.

Koriyama station was provided with culverts, platforms, sheds for same, latrines, etc.

2. Kanameda-Natsui Section.—The construction work on this section, started in May, 1912, was completed about 5.8 parts for earthwork, about 2 parts for bridging, about 4 parts for the construction of culverts, about 5 parts for drains and about 5.6 parts for tunneling.

Purchase of land for the section was finished about 5 parts.

3. Natsui-Kamiogawa Section.—The line starts from Natsui, 30 m. 15 ch. from the Koriyama starting point, the termination of Kanameda-Natsui section, and ends at Kamiogawa, 9 m. 25 ch. from the Taira starting point, a distance of 13 m. 69 ch. 75 lin. 94. The line at the outset keeps in parallel to the main road running through cultivated fields and after making a few turnings passes through the Takayashiki tunnel. Then it turns right, crosses the river Usawa on the borders between the districts of Tamura and Ishiki, and then once more turns to the right before it passes through the Gomizawa tunnel. Beyond the river Natsui is bored the Takinodaira tunnel after which the line proceeds on a large curve, and crossing the river Takagiyazawa and passing a tunnel of the same name zigzags along the side of steep hills till it enters among the valleys of Hitotsukubo and Tajirikawa. After making several bends the line passes through the Yamashitadani tunnel and once more meets the river Natsui which it crosses obliquely on a bridge of Deck type consisting of a span 200 feet long and 4 spans 40 feet dong. Beyond Tanaki the line intersects main road thrice, passes through the Unejiri tunnel, makes a few turnings before it arrives at a point where the two routes starting from Koriyama and Taira, respectively, meet. The line further proceeds, crossing the river Natsui a third time and runs through a plain till it arrives at the right bank of the river where is to be located Kawanoe station. On crossing the river Natsui a fourth time the line pursues a eastward course and runs across the main road to precipitous hillsides. Then crossing the river Natsui a fifth time it runs toward the village of Kamiogawa and turning left bores the Kurakake tunnel beyond which turning right follows a straight course across the main road till passing through the tunnels of Ushiogawa and Isokine it emerges upon the valley of Yamabesawa where is to be laid a drain tunnel. Further on it passes through the Eda tunnel and turning right it crosses the river Eda beyond which, after making several bends, intersects the main road and crosses the river Natsui a sixth time before it enters the village of Akai. Passing Nakaeda the line keeps along the river Natsui and runs on a big curve before it bores the Shimoeda tunnel. Then it crosses the river Natsui a seventh time and arrives at Kamiogawa. The ruling gradient is 1 in 50 and the sharpest curve of 15 ch. radius.

10. SHINJO LINE.

1.. Kogota-Iwadeyama Section.—The earth and other works on this section continued from the preceding year as well as the laying of bridge girders, plate-laying, ballasting, etc. newly started during the year, were nearly completed. The section is expected to be opened for traffic early next year.

The construction of the main and other buildings of Furukawa, Nakashinden and Iwadeyama stations, was taken in hand in April, 1912, and completed in November of the same year.

Purchase of land for this section was finished except 3 parts which still remain unacquired due to the farm adjustment work now going on.

2. Iwadeyama-Kajiyazawa Section.—The earth and other works taken in hand toward the end of the preceding year made a progress as prescribed, and were finished during the year. The construction of official residences for station masters and assistant station masters in the compound of Ikezuki and Kajiyazawa stations were completed in September while that of main and other buildings started toward the end of the year has made no noteworthy progress.

Purchase of land for this section was finished to the extent of about 8 parts.

3. Kajiyazawa-Sakaida Section.—The line starts from Nafujo, 35 m. 10 ch. from the Kogota starting point and terminates at Sakaida, 34 m. 45 ch. from the same starting point, a distance of 9 m. 33 ch. 70 lin. 7. The line at its outset crosses the river Sakai and intersecting the main road as it passes through the northern part of Kajiyazawa keeps along the hillside. Then crossing the swamps of Honhokezawa and Yomogitazawa and intersecting the Ugo highroad a second time, it turns left and crosses the river Arao before it enters the districts of Naruko round the projection of Akayu. Here Naruko station is planned. Beyond the station the line immediately turns right and proceeding along the hillsides for some distance crosses the marshes of Fudozawa and Mizunashizawa. Further on the line passes through the Naruko tunnel, bores the Nakaya tunnel and crosses the river Nakayama before it attains the eminence of Nakayama. Then it passes the valley of Otanizawa and making several turnings crosses the river Otani, the main road and the river Karuizawa. Thenceforward the line pursues a westward course crossing on its way the river Ushiro, Otani and Sekizawa, and intersecting the Kitauzen highroad on the borders of Yamagata prefecture before it finally reaches Sakaida. The ruling gradient of the section is 1 in 55 and the sharpest curve of 15 ch. radius.

The earth and other works on the subsection between 25 m. 10 ch. and 31 m. 0 ch. from Kogota being started toward the end of the year have not yet made progress worth mentioning.

Purchase of land for this section was finished about 1.2 parts.

4. Sakaida-Mukomachi Section.—The line starts from the eastern extremity of Sakaida, 34 m. 45 ch. from the Kogata starting point and terminates at Mukomachi, a distance of 6 m. 43 ch. 67 lin. 22. Leaving Sakaida station which is located south-west of Sakaida the line turns left, intersects the Kitauzen highroad and heading west crosses the swamp of Biwanosawa. Further on the line intersects the main road a second time and crosses the river Takahashi before it runs across the main road a third time. Then it turn left and zigzagging along the foot of rills passes through the swamp of Yukigasawa and proceeds behind the hamlet of Sasamori before it bores Asamori tunnel. Thenceforward the line makes a detour around the foot of Nukazuka hills and enters Shinden where it proceeds through cultivated fields toward the north east of the hamlet of Tomizawa and across the river Tomizawa. Then making several turnings the line intersects the main road a fourth time and crossing the river Kimida reaches Mukoda station which forms the termination of the section. The ruling gradient of the section is 1 in 55 and the sharpest curve of 15 ch. radius.

5. Mukaimachi-Shinjo Section.—The line starts from a point on the right side of the river Kinude 41 m. 23 ch. 0 lin. from the Kogota starting point, and terminates at Shinjo station, a distance of 17 m. 75 ch. 22 lin. 5. Leaving Mukaimachi station located at the southern end of the town of Mukaimachi the line proceeds west along the main road past the southern part of Yokomiya and crossing the river Shirakawa and the main road runs straight on through cultivated fields and then cutting through a small hill crosses the river Usugo and arrives at the right side of the river Okuni. Thence the line keeps along the river till it crosses hills and plains and passes through the Semi tunnel before it reaches Semi station. Further on the line crosses the river Oizurunosawa, bores the Nakazawa tunnel and crossing the river Okuni near the borders between the villages of Nishiokuni and Funakata intersects the main road a second time. Then it proceeds by the mountain foot heading west and intersecting the main road turns to the right a third time and follows a western course till after proceeding through cultivated fields and crossing the river Okuni it reaches Uchiyama station. Then the line wends it way further west boring the Uchiyama tunnel before it emerges upon the wide plain of Kitafunagata. Then turning right it crosses the main road, keeps in parallel to the Ou Main Line till it finally attain Shinjo station. The ruling gradient of the section is 1 in 88 and the sharpest curve of 15 ch. radius.

The work on the subsection between 46 m. 13 ch. and 51 m. 52 ch. from Kogota and between 51 m. 52 ch. 0 lin. and 59 m. 5 ch. 38 lin. were both taken in hand in December. Unfortunately, however, the snow season which set in immediately after the commencement of the work forbade all the outdoor work to be carried on except the boring of tunnels and in consequence the work has made no noteworthy progress.

6. Shinjo-Kiyokawa Section.—The reconstruction of Shinjo station and the earth and other survey on the section were finished towards the end of the year,

while the construction work was completed to the extent of about 1.5 parts for earth work, about 0.2 for bridging, about 1.5 part for teh laying of drains and 1 part for the construction of tunnels.

Purchase of land for this section was finished about 3 parts.

4. Kamiogawa-Taira Section.—The work on the subsection between 6 m. 60 ch. and 9 m. 25 ch. and between 0 m. and 6 m. 60 ch., both started during the present year, was completed about 4.9 parts for earth work, 4.8 parts for bridging, about 7.2 parts for the laying of culverts, about 7.3 parts for that of under drains and 7.3 parts for the construction of tunnels.

The construction of main buildings, latrines, lamp rooms, freight sheds, etc. at Akai and Nishiogawa stations was completed no more than about 2 parts.

Purchase of land for the section was finished about 7 parts.

6. Shinjo-Kiyokawa Section.—The reconstruction of Shinjo station, and the earth and other works on the whole section, all continued from the preceding year were completed November 1 of the present year.

The earth and other works on the subsection between 0 m. 50 ch. and 7 m. 10 ch. and between 7 m. 10 ch. and 8 m. 65 ch. both continued from the preceding year made progress as originally arranged, the former being completed in September, 1912, and the latter in the next month. The greater part of the plate-laying, ballasting, laying of girders, etc. connected with the above work was also completed towards the end of the year, while the erection of station was completed in December, 1913.

The construction of No. 1 Mogamigawa bridge constituting one of the most difficult works on the section was completed 8 parts, whlie that of Itajikiyama bridge, another case of an extremely painful work, made such a fair progress that boring has already been taken in hand. On an average the work was completed about 6 parts.

On the completion of the boring of the Kutsukui and 8 other tunnels on the subsection between 13 m. 60 ch. and 19 m. 40 ch. also continued from the preceding year, the expansion, cutting and paving works, were taken in hand and completed to the extent of about 8 parts. The rest of the works also made a fair progress, showing the completion of 6.4 parts on an average. The plate-laying and other works were programed to be undertaken by the Government's hand early next year. The construction of the official residences for the station master in the compounds of Furukuchi and Kiyokawa stations, continued from the preceding year, was completed in July 1912, while that of the main building of the same station started toward the end of the year has not made progress worth mentioning owing to the insufficiency of time at disposal.

Purchase of land for the section was nearly finished.

7. Kiyokawa-Sakata Section.—The earth and other works on the subsection between 27 m. 0 ch. and 31 m. 0 ch. comprising an extremely difficult work in the shape of the construction of No. 2 Mogamigawa bridge were completed about 3 parts by the end of the year, thanks to the extraordinary efforts on the part of the workmen who kept on working in defiance of the most inclement weather.

The work on the subsection between 31 m. 0 ch. and 34 m. 44 ch. continued from the preceding year was completed about 5.7 parts.

The principal construction work carried out on this section consisted of the erection of official residences for station masters and assistant station matters in the compounds of Karikawa, Yome and Hirata stations. They were started in June and completed in December.

Purchase of land for this section was finished about 8 parts.

11. BOSO LINE.

1. Anegasaki-Kisarazu Section.—On the completion of the earthwork in May, 1912, the construction of station buildings, plate-laying, ballasting etc. were taken in hand, and simultaneously with their completion on August 21, the section was opened for traffic.

2. Ohara-Katsuura Section.—On the completion of the earthwork on the subsection between 35 m. 68 ch. 95 lin. and 41 m. 77 ch. and in December, 1912, and January, 1913, respectively, plate-laying, ballasting and bridging were taken in hand for both sections and completed to the extent of about 8 parts.

The construction of station buildings and other works were started in December and completed about 8 parts.

12. HOJO LINE.

1. Kisarazu-Sanuki Section.—The line starts from Kisarazu Station, 19 m. ch. from the Soga starting point, and terminates at 31 m. 65 ch. from the same starting point, a distance of 12 m. 5 ch. After pursuing a straight course for some distance, the line crosses the river Araki and turning right enters the village of Hatazawa before it reaches the village of Yaehara where is bored the Koyasu tunnel. The next station reached is Susai Station standing in the village of Susai, beyond which the line turns to the left, crosses

the river Koito and then enters Aohori village where is planned Aohori station. Further on the line bends to the left and passes through the villages of Iino, Futsu, Yoshio, and Omiki. Leaving Omiki station the line runs across the river Iwase and then intersects the Sanuki highroad on a road bridge, and turning left heads straight on till it crosses the river Onuki and turning to the left intersects the highroad a second time. Then the line bends to the left and bores another tunnel before it makes the small town of Sanuki where is located Sanuki station. Beyond the station the line crosses the Yahata highroad and the river Sanuki, whereupon the section comes to its termination. Throughout the section flat land predominates. The ruling gradient of the line is 1 in 100 and the sharpest curve of 20 ch. radius.

On the comptetion of the work on this section in August, 1912, the purchase of land was commenced and now finished about 4 parts.

The earthwork on the subsections between 19 m. 60 ch. and 35 m. 35 ch. and between 25 m. 35 ch. and 31 m. 60 ch. started in December, 1912, was completed no more than about 1 part

Supervising officers' quarters was provided at Kisaratsu and Kokubo, and a watch cabin at Nakano, Ohari and Sanuki.

2. Sanuki-Kanaya Section.—The line starts from Tsuruoka, Sanukimachi, 31 m. 65 ch. from the Soga starting point and terminates at Kanaya, 39 m. 8 ch. from the same starting point, a distance of 8 m. 10 ch. 31 lin. Turning right at the outset, the line crosses the river Samekawa and turning left passes through the Yahagiyama tunnel, and then through the Kobinata tunnel beyond the river Goida. Then the line enters the town of Minatomachi, and boring the Sishiakunami tunnel and crossing the river Yoiri emerges upon the north west coast of Minatomachi where is to be located Kazusaminato station. Then crossing the main road and the river Minato it reaches the village of Tenjinyama where exists Takegaoka tunnel. Further on the line turns right, crosses the river Takeoka and makes another bend to the right whereupon the line heads straight intersecting the Tateyama road, passing through the Torozaka tunnel and once more running across the Tateyama road. Beyond the Tsuda and Sekida tunnels which come in succession, the line turns right and passes through the Kumanomae tunnel, emerging out of which it immediately turns left, passes through the Sakamoto and Haraguchi tunnels, and reaches the village of Kanaya where it intersects the main road a fourth time. Beyond the Ushigama and Taruya tunnels the line crosses the river Shibazakiyama and wends its way as far as Kanayama station, the termination of the line being reached a little beyond across the river Kanaya. The districts traversed by the section are extremely mountainous with the sea ever keeping close by. The ruling gradient is 1 in 100 and the sharpest curve of 18 ch. radius.

Survey on the section was completed in June, 1912, but purchase of land yet unfinished.

The work on the subsection between 31 m. 60 ch. and 35 m. 42 ch. started in February, 1913, has made no noteworthy progress.

3. Kanaya-Hojo Section.—The line starts from Kanayamura, 39 m. 8 ch. from the Soga starting point and terminates at Anjo, 52 m. 50 ch. from the same starting point, a distance of 14 m. 90 ch. 29 lin. Turning right immediately after its departure the line crosses the river Tenno and passes through the Nokogiriyama tunnel on the borders between the provinces of Kazusa and Awa beyond which it turne left and croses the rivers Koiso and Motona before it reaches Hongo where is to be locatd the Hoda station. Then it intersects the Kamogawa road, crosses the river Hoda and after making several bends passes through the Yoshihama tunnel before it reaches Tatsushima where is to be located Katsuyama station. Then crossing the river Sakuma asd tne main road, the line follows a straight course as far as Iwai station beyond which it intersects the Heguri road, crosses the river Okawa and turning right intersects the Kine road before it passes through the three tunnels of Koura, Okutani and Minamitani. Next it passes through the Namutani tunnel and emerges upon the valley of Namutani where the line makes several bends and crosses the rivers Ota and Niita, and bores the Yamazaki tunnel. Then comes the Shirinashi tunnel, passing through which the line crosses the river Toyokawa and turning right bores the Hijiriyama tunnel before it reaches Tomiura. Further on th line turning left enters the village of Yatsuka where it crosses the river Okamoto and passes through the Funagata tunnel before it reaches Funagata station. Beyond the station the line turns right, crosses the main road, and comes via Nako and Ninatomachi to the town of Hojo in the western extremity of which is to be located Hojo station. The line further proceeds, intersecting a public road leading to the coast and turning left crosses the Tateyama road and finally attains its termination. The ruling gradient is 1 in 100 and the sharpest curve of 20 ch. radius. The districts passed by the section are generally level, with only a few intersecting mountains.

Survey on the section was finished in December, 1912, but the construction work not yet started.

13. OHAMA LINE. (TSURUGA— MINAMI-SAIGO).

The line starts from Tsuruga station, 39 m. 60 ch. 50 lin. and turning right proceeds through the town of Tsuruga and the village of Awano till it reaches Kanayama where is to be located Awano station. Then it passes Azono, turns left, and passes through the Atagoyama tunnel on the borders between the provinces of Echizen and Wakasa. Further on it makes a few turnings as it passes through the village Santo and then intersecting the Tango road reaches Koshigoe hill via Yamagami. Then passing through another tunnel

the line proceeds as far as Sakajiri in the same village where it turns left, passes through the Tsubakitoge tunnel and comes to where Kawaraichi station is planned, before it finally attains its termination. The section measures 9m. 64 ch. 77 lin. in length with the ruling gradient of 1 in 100 and the sharpest curve of 20 ch. radius.

Survey on this section was finished in September, 1912.

Purchase of land is not finished as yet, owing to insufficiency of time at disposal.

Supervising officers' quarters was erected and and lamp room transpleted from the Toyama line.

The subsection between Minamisaigo and Agari about 10 in length is under survey.

14. SAEKI LINE.

1. Oita-Aoe Section.—The earthowrk on this section taken in hand toward the end of the current year has been completed 3 parts while the construction of the official residences in the compounds of Usuki, Tsuruzaki, Takagi and Sakanoichi stations, watchmen's boxes at level crossings on the 4th section, temporary official residenses and temporary accommodations for employees on the 3rd and the 5th section was brought to complete. The waterwork in the compounds of Oita station started in February of 1913 made no progress worth mentioning.

2. Aoe-Nabuto Section.—The sect on starts from Nakamuta 19 m. 0 ch. from the Tamanoe starting point and terminates at the northern end of Nabuto, a distance of about 7 m. 21 ch. The line first heads due east and crossing the river Nakamuta roaches Kekoya. Then turning right it crosses the borders of the villages of Aoe and Tsugumi where it passes through No. 1 tunnel and reaches Tsugumi station. Further on the line crosses a river on the Tsugumi bridge, beyond which the line proceeds with the expanse of the sea on one side and a mountain range on the other, till after laying the Fuku bridge and boring No. 1 Tsugumi tunnel it reaches Hiroura. Then turning left it crosses the river Chinu and runs through Himi tunnel before it get to the village of Hishiro. After a few more turnings the Himi bridge and No. 1 Fukuyoshi tunnel are constructed beyond which the line follows a zigzag course leading to where Hishiro station is to be located. Then it bores No. 2 Fukufoshi tunnel and turning to the right crosses a river on the Ajiro bridge and runs through the hamlet of Ajiro till it attains the borders of Minami-Kaifu and Kita-Kaifu districts where the Tsui tunnel is bored. After this the line traverses the plain of Tsui and comes upon the seashore and then passing Uminaka lays the Asamigawa bridge before Asami station is reached. Then come No. 1 and No. 2 Nabuto tunels after passing through which it finally attain the northern end of Nabuto. The section stretches some 7 m. 21 ch. in length with the ruling gradient of 1 in 66 and the sharpest curve of 15 ch. radius.

Purchase of land for this section was nearly finished. The earthwork was taken in hand in September, 1912, and completed to the extent of about one part.

The construction of official residences for station masters, temporary accommodations for supervisors and workmen was completed, while the employees's quarters and temporary stores were mostly transplanted from Oita station.

3. Nabuto-Saeki Section.—The line starts from 26 m. 65 ch. from Tamanoe starting point and terminates at 32 m. 64 ch. from the same starting point, a distance of about 5 m. 76 ch. Passing through No. 3 Nabuto tunnel at the outset the line enters the village of Nabuto where it crosses a river on the Nabuto bridge and turning right bores No. 4 Nabuto tunnel on the borders between Higashikamiura and Nishikamiura. In the middle part of Futabae, the line bends to the right and passing through the Furue tunnel comes upon the seashore of Furue. Then turning left it crosses the river Furue and making another turning to the left at the southern extremity of Furue finds itself once more on the seashore. Further on the Kazanashi Mountain is cut through for a path leading to the plain of Karyu across which the line now wends its way. Beyond the river Karyu which next confronts the line it turns right, runs through the Miyanouchi tunnel, proceeds across the depressed land of Kakohora and reaches the borders between the villages of Nishikamiura and Yahata where the Yahata tunnel is bored Then laying the Setogawa bridge the line turns left and follows a straight course till it comes to the seashore after crossing the river Otomegawa at Umizaki. Then it crosses the river Yamaguchi whereupon the line enters Momoeda and crossing the river Enohata bores the Sakanoura tunnel, the longest one throughout the section. Then crossing the river Sakanoura and passing through the Kuru tunnel the line finally makes the town of Saeki where is to be located Saeki Station beyond which at Usutsubo the line comes to its termination. The ruling gradient is 1 in 66 and the sharpest curve of 15 ch. radius.

The work on this section taken in hand June of 1913 has not yet made progress worth mentioning.

The construction of employees' quarters and temporay stores was completed.

15. TOKUSHIMA LINE. (KAWADA-IKEDA).

The earth and other works on the subsection between 0 m. and 5 m. from the Kawanoe starting point continued from the preceding year was completed towards the end of the year under review. The plate

laping and ballasting newly started has not been finished while the laying of a bridge over the river Anafuki was completed. Construction cars are operated as far as near 2 m. from the Kawada starting point. The works on the section between 5 m. and 11 m. 70 ch. continued from the preceding year was programmed as being completed by the 7th April, 1913. Unfortunte-ly, however, the flood in September, 1913, gave rise to serious accidents, such as the collapse of river embank-ments, of bridges and culverts, which went to con-siderably hamper the execution of work. In consequ-ence the work was not yet brought to completion, leaving on an average a little more than 1 part still to be finish-ed.

Though the work on the subsection between 11 m. 70 ch. and 24 m. ch. was also affected by the flood mentioned above, the damages it suffered were but insignificant. In view, however, of the possible occurrence of similar events in future an alteration in the original program was effected which consisted of the widening of bridge spans by 30 feet and increasing the number of girders yb 3. The work was completed 5.4 parts for earth work, 6.5 parts for bridging, 4.8 parts for culverts and 8 for parts drains. Purchase of land has nearly been finished.

16. TADOTSU LINE. (TADOTSU-KANNONJI).

The line starts from 1 m. 3 ch. 39 lin. 3 from the Tadotsu starting point and terminates at the village of Kunita, a distance of 16 m. 49 ch. 92 lin. 2. At the outset the line turns left and proceeds south till after crossing the Shimomichi highroad it reaches a point to the south of the town of Tadotsu where was formerly located Tadotsu station. Then intersecting the Kinzoji highroad the line proceeds among cultivated fields and turning right crosses the river Hirota beyond which is planned Kaiganji station. Further on the line makes another turn to the left and emerges upon Ogigaura where is laid a road-bridge. On intersecting the Shimomichi highroad which confronts the line a second time, it finds itself running along a precipitous path laid across Kaiganji hill, and intersecting the Shimomichi highroad a third time enters the vil-lage of Omi. The line further wends its way, inter-secting the Shimomichi highroad a fourth time till turning left and crossing the same highroad twice more reaches Takuma station standing east of Matsuzaki. Then it crosses the Takuma highroad, turns left and once again passes through the village of Omi. After this the line crosses the river Asatsu, turns left and proceeding through the village of Shimotakase crosses the river Takase from where the line keeps a straight course till after crossing the Takuma highroad it reach-es Kamitakase station located west of Shinna. Im-mediately afterwards the line turns to the right and then to the left whereupon it enters the village of Hijida by way of Hijini. Thenceforward the line follows a straight course as far as the village of Kuwayama and crosses the river Harashima before it reaches Moto-yama station in the west of Suriki. Leaving the station the line crosses the river Zaida and wends its way skirt-ing the village of Ichinotani and intersecting the Kan-nonji highroad till it reaches the village of Tokina. Then the line proceeds through a plain in a straight course which leads to a station at the eastern extremity of the town of Kannonji. Further on the line inter-sects the Manda highroad and then turning left crosses the Kunita river beyond which the line comes to its termination. Lying close by the inland sea, the districts traverved by the section are generally mild in geogra-phical feature, Kaiganji hill forming the only exception throughout the section. The ruling gradient is 1 in 100 and the sharpest curve of 20 ch. radius.

In connection with the construction work on the preceding section a partial reconstruction of the Koto-hira Line was carried out with a view to bringing it into direct contact with another line. The new line thus created measures 1 m. 65 ch. 74 lin. 4 with the highest gradient of 1 in 165 and the sharpest curve of 20 ch. radius. Together with the above work there was also carried out the construction of a branch 54 ch. 47 lin. 8 in length, which starting from the centre of Tadotsu station and running north and in parallel to the Tadotsu line comes to connect direct with the same line.

On the completion of the construction of Tadotsu Construction Office, survey on the section was started and finished in July of the same year. Then the partial reconstruction of the Sanuki line was taken in hand. The construction work on the subsection be tween 0 m. 0 cho. 0 lin. and 4 m. 10 ch. 0 lin. and the partial reconstruction of the Sanuki line was taken in hand in October, 1912, and completed about 4 parts, while the works on the subsections between 4 m. 10 ch. 0 lin. and 11 m. 40 ch. 0 lin. and between 11 m. 40 ch. 0 lin. and 16 m. 50 ch. 0 lin. were completed about 5 parts for the former and about 3 parts for the latter.

The underground work at Tadotsu and Kannonji stations taken in hand in February 1913 has made no progress worth mentioning.

17. SENDAI LINE.

1. Kagoshima-Ijuin Section.—The reconstruction of Kagoshima station continued from the preceding year was completed in June, 1912. The erection of the main house of the same station was attended with vari-ous difficulties since the work had to be carried out in a place adjoining to the passage for travellers in the old building to the southern side of which the new one was to be constructed. It was solely due to painful efforts

on the part of the workmen that the work was brought to completion and the station was opened for service as early as March, 1913. On the subsection between 0 m. 25 ch. and 2 m. ch. 70 lin. the earth and other works which were started during the preceding year, being located along the busiest part of the city presented a serious cause for trouble owing to the absence of places to deposit the earth incidental to the boring of the Siroyama tunnel. Moreover, the rain storm in October, 1912, caused the river Kotsuki to swell up to such an unusual height that the muddy flow of the water flooded over the banks of the river as a result of which the bridges laid for temporary use were swept away, and filling work going on at Take station suffered great damage. The road for conveyance of the materials was also destroyed badly. This circumstance made the progress of work seriously fettered. The work on the subsection between 0 m. and 3 m. 54 ch. continued from the preceding year was inflicted heavy damage also by a recent flood, but fortunately the advantages the section had in the way of the digging and carrying of earth served to greatly expedite the progress of the work, and the whole work was completed in June, 1912. Then, in October of the same year, the embankments, cuttings, rubble mounds, culverts and drains were damaged in consequence of a rain storm, but a restoration work was speedily applied to and completed in March, 1913. The work on the subsection between 3 m. 54 ch. and 6 m. 41 ch. taken in hand during the preceding year made a fair progress on account of facilities of conveyance it enjoyed, and the total absence of bad weather, up to October, 1912, when there took place a rain storm which swept the embankment and drove earth to the cutting in the Manjuguchi station compounds. The cutting on the section between the same station and the entrance of the Manjuguchi tunnel formed another case of difficulty owing to the presence of hard rock composing the soil, a continuous gushing of abundant water and the prevalence throughout the section of a high gradient. A similar circumstance made the expansion of the tunnel a painful work. Nor did the difficulty accompanying confined to this, for owing to the predominance of volcanic ashes composing the soil throughout the entire section, there never took place a rainfall but washed away a large quantity of earth so that a special means of protection had to be made in connection with earth and drain works. The work is now completed 9.2 parts for earthwork, 9.9 parts for bridging, 0.9 part in the construction of culverts and tunnels, and 9.4 parts for that of drains.

The work on the subsection between 6 m. 41 ch. and 10 m. 30 ch. 15 lin., continued from the preceding year, was completed in August 1912. Though a flood, which took place later, wrought some damage upon embankments, cuttings and filling work in the station compounds, repair work was speedily proceeded with and completed in March, 1913.

The construction work carried out on this section comprised the erection of several official buildings for station employees.

The plate-lying between Kagoshima station and Sendaiguchi has made no more progress than 2 parts.

2. Ijuin-Sendai Section.—On the subsection between 13 m. 14 ch. and 16 m. 15 ch. supply of stone was rich, so that though unfavourably conditioneed both geographically and geologically, the work made a speedy progress and was completed in August 1912.

The subsection between 16 m. 15 ch. and 30 m. 6 ch. being located along the cables for telegraphic use great care was needed for the handling of the explosive used, and this circumstance necessarily retarded the progress of the earthwork which was completed in December, 1912.

Owing to the death of the contractor, the contract had to be retracted and the work suspended up to July, 1912. While enjoing every facility in other matters, the section was attended with difficulties on account of the prevailing weak strata and the presence of hard rocks lying in rapid slope, together with a gushing water which required piling. The earth and other works made progres as prescribed and were nearly completed.

The subsection between 23 m. 50 ch. and 27 m. 41 ch. lying contiguous to the the main road and running along a hillside past the mining district of Satsumayama, no small inconvenience was felt in disposing of earth, while the soil composed of extremely hard rock interspersed with weak soil made the work an extremely painful one.

A collapse took place during September, 1912, of the hill-top near 24 m. 62 ch. and 180 feet distant from the centre of the cutting then in course of construction, in consequence of which the gradient was given a slope easier than originally programmed. The work was completed 8.1 parts for earth work, 0.9 part for bridging and 9.6 parts for culverts.

The work on the subsection between 27 m. 41 ch. and 31 m. 3 ch. was started in September, 1912. In regard to the conveyance of materials the section enjoyed every fascility on account of its proximity to the main road except about a mile, while the prevailing weak strata made the execution of earth work extremely easy. The section, however, passing mostly through the districts subject to flood damage, it was necessary to carry out various difficult works comprising among the rest the construction of no less than 10 bridges over the rivers all apt to swell to a high level by the slightest rainfall. It is delightful to remark, however, that the work none the less made such a speedy progress thanks to the utmost exertion by the workmen, that foundation work connected with bridging and various other works carried on underwater was brought to completion prior to the setting of rainy season.

The work was completed on an average 5 parts for earthwork, 1.3 part for bridging and 8.4 parts for culverts.

The construction work on this section comprised the erection of Higashiichiki, Yunomoto, Nishiichiki and Serigano stations.

18. MIYAZAKI LINE.

The earthwork on this section was taken in hand in April, 1912, in connection with the construction of Kyomachi station 3 m. 14 ch. and completed in June of the same year.

The work on the subsection between 9 m. 70 ch. and 16 m. 74 ch. continued from the preceding year was completed in April, 1912.

The construction of an overbridge on the Yoshimatsu station compounds was started in February, 1913, and completed about 5 parts.

The construction carried out on this section consisted of the erection of the main building, platforms, waiting rooms, etc. at Kyomachi station, and the main building, waiting rooms, freight shed, official residence for station master, etc. at Kobayashimachi station.

Plate-laying was started in March and completed in September, 1912, the section being opened for traffic on October 1st.

1. Yoshimatsu-Kobayashimachi Section. — The earthwork on the section was taken in hand in April, 1912, along with the Construction of Kyomachi station and completed in June, 1912.

The work on the subsection between 9 m. 10 ch. and 16 m. 74 ch. continued from the precedeing year, was completed in April, 1912.

The provision of an overbridge to Yoshimatsu station which formed the remainder work on this subection was started in February, 1913 and completed to the extent of about 5 parts.

The construction work carried out on this section comprised the erection of a main building, waiting rooms and platforms at Kyomachi station, and a main building, waiting rooms, freight shed and official residences for the station master and assistant station master at Kobayashimachi station.

Plate-laying started in March, 1912, was completed in September, and the section was opened for traffic on October 1st of the same year.

2. Kobayashimachi-Miyakonojo Section.—This section forming as it does the beginning of the detour line to Miyakonojo and keeping along the foot of Mt. Kirishima, was attended with various obstructions in the shape of plateaus and ravines lying intermingled with each other which made the execution of work extremely hard. All these difficulties, however, were overcome, thanks to the painful effort on the part of workmen, and the work was brought to completion in September, 1913 earlier than originally programmed. But, unfortunately, a heavy rain storm such as seldom experienced before, took place during the succeeding month, resulting in the sudden appearance of a gushing torrent in a corner of Mt. Kirishima the current of which swept on its forcing way several hundred pieces of big timber as far down as the Fukuharagawa bridge, causing one of the piers to incline and another to fall. Restoration work was speedily applied to and was completed within 45 short days ranging from November 1912 to January of the next year.

The work on the subsection between 22 m. 9 ch. and 27 m. 40 ch. was completed in November, 1912, also prior to the programmed date, in spite of the presence of a somewhat hard work in the shape of the construction of the Takasakigawa bridge and the occurrence of heavy storms and floods which caused the embankments and cuttings to break at several places.

The work on the subsection between 27 m. 40 ch. and 33 m. 7 ch. continued from the preceding year, was carried out with no difficulty as regards earthwork on account of the strata being composed of weak pumice stone, while the same circumstances made the foundation work difficult, and required pitching to be constructed in connection therewith. The difficulty was further aggravated by the narrowness of the road on which the materials had to be conveyed. The work, however, was energetically proceeded with and completed in November, 1912.

The earthwork on the subsections mentioned above was brought to completion, while the plate-laying and the laying of girders for bridges and culverts was nearly completed.

The subsection between 33 m. 7 ch. and 38 m. 4 ch., the work on which was started on the same day as the preceding section, being intersected by several meandering rivers, there had to be laid as many as 5 bridges stretching upwards of 100 feet, and no less than 6 below 100 feet in length. The flood and storms which took place in September gave rise to many serious catastrophes which resulted in much retarding the progress of work. Then the remoteness of places where the materials to be used for construction work were to be conveyed from, prevented any great amount of them to be carried at a time despite the presence of well constructed roads. Further, the presence of weak strata required concrete piling to be constructed in connection with bridging though the same circumstance served to make the task easy so far as concerns earthwork. The work was completed as to stations and culverts while earthwork and bridging were finished 9 parts and 9.3 parts, respectively.

The chief construction works carried out on this section comprised the erection of official residences for the station master and the assistant station master at Miyakonojo station and main buildings and freight sheds at Takahara and Takazaki-shinden.

3. Miyakonojo-Miyazaki Section.—The line starts from Miyakonojo station, 38 m. 4 ch. from the Yoshimatsu starting point and terminates at the north eastern extremity of the town of Miyazaki, 70 m. 1 ch. from the same starting point, a distance of 31 m. 0 ch. 11 lin. Immediately after the outset, the line intersects the main road and heading east traverses the plain of Okimizu and proceeds via Mayami toward the village of Mitsumata, where is located Mitsumata station. Then turning left the line pursues a northern course toward the village of Yamanokuchi which is reached after its crossing the river Okinomizu and passing through the Kosai. Here the line crosses a

small hill and the river Tomiyoshi, and enters cultivated fields. After traversing the fields it crosses the river Hanaki, intersects the main road and attains Hanaki where is to be located Yamanokuchi station. Then it heads northeast and crossing the river Yamanokuchi takes a downward course through the valleys of Uradaya and Hokigoto on a rapid slope till it comes to the place where is to be laid the Hokigoto drain tunnel. Then making a turn to the left the line passes through Yamanokuchi Nos. 1 and 2 tunnels and wends its way along a stream. Further on the Shikakume tunnel is bored the river Aoidake crossed and then the Inokawa and Aoidake tunnels passed through, between which two the river Aoidake is crossed a second time. Thenceforward the line gradually descends as far as Tenjin, elevated from the average sea level by 961 feet. Beyond Tenjin station the line crosses the river Saeki and proceeds among hills where are bored through the Inotani Nos. 1, 2, 3 and 4 tunnels in close succession. Then the line heads due east, crosses the river Karamita, intersects the main road, and turning left crosses the river Matsuyama three time before it reaches Yae. Then turning right it runs along hillside, crosses the river Matsuyama, and passes the north extremity of Matsuyama beyond which it crosses the river Tano and reaches the plateau of Manabinoki where is located Tano station commanding a wide prospect. Beyond the station the line intersects the main road, crosses the river Ikura and Umeya, and then again intersects the main road beyond which it keeps along a stream till after making another crossing of the main road it enters Funagayama. Then the line proceeds through cultivated fields and crosses the Okubo river twice before heading east it reaches Matsunokida where is to be located Kiyotake station. On crossing the river Kiyotake it bores the Kiyotake tunnel and turning right proceeds to the village of Akae lying beyond the river Shimbari. Then a small hill is cut through for a passage leading to the village of Akae lying beyond the river Shimbari. where is planned Akae station. Further on the line intersects the Jogasaki road, crosses the river Oyodo and reaches the town of Miyazaki where are to be constructed two road bridges before the line terminates at the eastern end of the town. On the district the Miyakonojo-Yamanokuchi, and Kiyotake-Miyazaki sections passes through there are only a few number of hills while the greater part of the section Yamanokuchi-Kiyotake is laid in a extremely mountainous district. The ruling gradient is 1 in 60 and the sharpest curve of 15 chain radius.

Survey on this section was completed in July, 1912, while the purchase of land was finished towards the end of the year execept a mile traversing the village of Kiyotake. The bridging over the river Okimizu which formed the principal work for the subsection between 38 m. 4 ch. and 45 m. 20 ch. had its progress seriously retarded as regards the foundation work, on account of the presence of a gushing water at the spot of working, together with the transposition of the flowing centre of the river brought about by a flood in Ocober, 1912, which required stone walls to be provided for the embankments. The heading of the Kosai tunnel was comparatively easy, the work making a fair progress on account of the geological character of earth highly favourable for the execution of the work. Throughout the section the supply of brick and stone was never lacking, the district the line passed through abounding in the production of these materials, whereas a great difficulty was experienced in the conveyance of stone which had to be carried from a distant quarry. The work was completed on the average 4 parts for earth work, 5.5 parts for bridging, 6 parts for construction of culverts and 0.5 part for tunnelling.

In connection with the work on the subsection between 45 m. 20 ch. and 48 m. 20 ch. a light railway line for the exclusive purpose of transporting materials was laid. The bridging over the river Yamanouchi made a speedy progress, sinking of frame being already taken in hand, while the foundation work for the Uradaya truss bridge is still going on. Drain and other works were also well forward despite the scantiness of times at disposal.

The subsection between 48 m. 20 ch. and 52 m. 10 ch. the work on which was started in January, 1913, being located in the most retired place throughout the Miyazaki line where traffic of any kind but rarely takes place, it was necessary to provide sheds and to construct roads for the use of employees and workmen and also to clear the place of all the growing trees, which taxed them some day's labour. The construction of the Aoidake tunnel forming the most difficult work on the whole section, has not yet been commenced, its entrance being to be situated in an extremely narrow gorge defying an easy access, while the boring of the Inokawa tunnel made a comparatively fair progress owing to a more favourable position it occupied. The work on the subsection between 64 m. 20 ch. and 70 m. 1 ch. was started in June, 1912. The foundation and well-sinking work were completed to the extent of 4 parts, the latter proving especially satisfactory by standing the test stress at the depth of about 47 feet, though during dry season the work did not make a progress as prescribed, owing to the scanty supply of brick which circumstances also hindered the progress of other similar works. Another cause of tardiness lay in the occurrence of a heavy rainstorm which destroyed the embankment of the river Kiyotake and caused the rapid current dashing against the bridge piers. In consequence, 3 spans of 40 feet were additionally laid and retaining walls provided in consideration of the geographical features of the neighbourhood and the volume of the flowing water in the river, while stone walls and rubble mounds were made at the base of the embankments for protective purpose between the westside piers of the Asadagawa bridge and the eastside piers of the Oyodogawa bridge, contrary to the original pragram. The work on the average made a fair progress, the earthwork being completed 4 parts, bridging 4 parts, the construction of culvert 6 part, the tunnelling 4 parts and the erection of stations 2 parts.

The construction work carried out for this section

comprised the erection of official residences for station master and assistant station masters, etc. for Mitsumata, Akae and Miyazaki stations, and a temporary store for Kiyotake station.

19. ABASHIRI LINE.

In succession to the earthwork, and the construction of bridges, culverts, underdrains, tunnels, etc., was carried out an additional work consisting of an elevation of the level of bridges over the river Abashiri and Bihoro with a view to safety in the operation of trains and other works connected therewith, and on the completion of these works as well as of the remainder works consisting of the construction of main and accessory buildings, engine house, tables, etc., the section was opened for service on October 5th, 1912.

20. SOYA LINE.

1. Chibun-Sakku Section.—The remainder work consisting of earthwork, the laying of bridge girders, the construction of main building, the installation of signal apparatus, etc. was carried out to Sakku station, and on the completion thereof, the section was opened to service on November 5th, 1913.

2. Sakku-Otombetsu Section.—The line starts from 79 m. 29 ch. from the Asahigawa starting point and terminates at 90 m. 4 ch. 43 lin. 3 from the same starting point, a distance of 10 m. 51 ch. 10 lin. Turning left at the outset, the line heads northwest towards Otoineppu station beyond which crossing the river Kitsutsuki it turn right and proceeds north keeping along the river Otoineppu as far as near 81 m. 10 ch. where it runs across the river. Further on the line crosses the same river at 83 m. 13 ch. a second time and reaches 83 m. 53 ch. where is to be located Ottoineppu station. Thenceforward the line makes progress in a zigzag, and running down a narrow valley proceeds across several streams till it comes to the borders between the provinces of Teshio and Kitami where it bores the Tenhoku tunnel. At the village of Tombetsu the line descends along the narrow basin of the river Otonbetsu as far as near 88 m. 70 ch. from whence the route becomes gradually narrow, and crosses the Otombetsu as many as six times before it reaches its termination. The ruling gradient is 1 in 100 and the sharpest curve of 15 ch. radius.

The earth and other works on the subsection between Sakku and Otoineppu were started in May, 1912 and on their completion the section was opened for service.

The earth and other works on the subsection between Otoineppu and Otombetsu were taken in hand in October, 1912, but owing to snow season which set in immediately after their commencement, the works were suspended with the completion of the walling of the Tenhoku tunnel.

21. SHIMOFURANO LINE.

The earth, bridging and other works on this section continued from the preceding year and the installation of turntable and the erection of engine house, platforms, etc. started during the year under review were completed while the bridging over the river Takane, the construction of the main and other buildings at Horokura and two other stations are finished to the extent of about 9 parts.

2. Shimoashibetsu - Shimofurano Section. — The earth and other works on the subsection between Hommojiri and Shimofurano continued from the preceding year were brought to a finish during the present year, while those on the subsection between Shimoashibetsu and Hommojiri started in September, 1911 were suspended owing to the setting in of snow season till the time of thaw next spring. The bridging, earthwork, etc. were completed except those near 25 m. 3 ch. Platelaying and ballasting were also nearly finished.

The work relating to the main and accessory buildings, platforms, loading stages, overbridges of Shimoashibetsu stations and the platforms and loading stages of intermediate stations were carried out, some of them being newly constructed and others transplanted.

22. NEMURO LINE. (KUSHIRO-AKKESHI).

The line starts from the center of Kushiro station, 0 m. 55 ch. from the mark station on the Nemuro line and terminates at 30 m. from the same station mark, a distance of 29 m. 40 ch. 43 lin. 2, At the outset the

line intersects the Tottori road and crosses the river Kushiro whereupon the line heads northeast along hillsides after a highway built for temporary use. Then crossing a temporary highroad thrice the line pursues a northeastern course as far as near 3 m. 30 ch. where it crosses the river Sano. Further on the line crosses the river Beppo and enters a narrow valley where the line follows an extremely irregular course, crossing the Beppo several times more. Beyond Kamibeppo station the line generally heads east running across the river Beppo three times and then passing through the Beppo tunnel comes to the same river which is crossed thrice more. Here the line departs from the course of the river, being unable to keep along it any further owing to the hills intervening, and pursues a route laid along another river Onneahaburibetsu which it crosses as many as four times. Emerging out of the Ababurubetsu tunnel, it finds itself again by the river Beppo along which it proceeds. At the Biboro tunnel, it reaches the highest point throughout the line, the place being elevated from the sea level by 234 ft. 12 in. Thenceforward the line makes a gradual descent and runs towards Biboro station which is reached after crossing the river Biboro twice more. Then turning left the line heads northeast zigagging along the foot of the hills and crossing the river Biboro and intersecting the Akkeshi road, till it emerges upon the Akkeshi bay on the shore of which is to be located Akkeshi station, the terminus of the section. It may be remarked in passing that there is a plan on foot to construct a branch from this station to effect the connection between sea and land. The ruling gradient of the line is 1 in 100 and the sharpest curve of 11 ch. radius.

In view of earthwork, bridging tunnelling, etc. to be carried out next year the cement shop and the supervising officers' quarters both for provisional use were erected and brick and cement were transported to the spot of work taking advantage of the fallen snow.

23. LIGHT RAILWAYS.

1. MOKA LINE. (Moka-Nanai).

The line starts from Moka station and terminates at Nanai station, a distance of 7 m. 37 ch. 62 line. 9. Turning right about 10 ch. from Moka station the line heads east and crosses the river Kingyo as it passes through the town of Moka. Keeping further east the line reaches Nishitani, from whence the line runs toward Ikutame by way of Higashitani, crosses the river Ogu and then turning left follows a northeastern direction till it arrives at Masuko where is planned a station. Further on the line turns left, proceeds through cultivated fields, and crossing the river Ohane arrives at Nanai where is to be located Nanai station. The district the line passes through is generally level with the ruling gradient of 1 in 132 and the sharpest curve of 18 ch. radius. Survey on the section was started in May and completed next month. The purchase of land was also finished. The earth and other works taken in hand in December, 1912 were completed about 7 parts.

2. KUROISHI LINE. (Kawabe-Kuroishi).

On the completion of the purchase of land for the section the work was started and brought to a finish in July, the section being opened to service in the succeeding month. In connection with this work Kawabe station was provided with a set of No. 3. interlocking apparatus and a semaphore.

3. KURAYOSHI LINE. (Kurayoshi-Kamii).

Purchase of land for the section was finished.

The construction of the Takegawa bridge was carried out differently from the original arrangement as regards piers in consequence of the removal of steel girders.

A small station was erected in the middle of the section in view of prospective demand of the neighbourhood for a traffic means.

The earth and other works on the section were nearly completed in June, 1912.

The construction of the main and other buildings at Kurayoshi station continued from the preceding year was completed in July, 1912.

Besides the above were carried out various works such as platelaying, bridging, ballasting, etc.

Kuninada station was opened to service on June 1st, 1912.

4. FUNAKAWA LINE. (OIWAKE-WAKIMOTO).

The line starts from the centre of Oiwake station and terminates at Wakimoto station, a distance of 12 m. The line first runs north along the left side of the existing line, and then intersecting the Rikuu road reaches a point of 1 m. 5 ch. by way of Tenno-mura. From whence the line makes a gradual descent till it again enters the village of Tenno after intersecting the village of Okubo. Thenceforward the line ascends through a pine grove in parallel to the Funakawa road till it reaches where a station is planned to the west of Futada. Further on it turns right and intersects the Futada road, beyond which turning left it crosses the river Hachiro and enters the town of Funakoshi at the northern extremity of which is to be located a station. Then turning right the line proceeds in parallel to the Funakawa road and after making several turnings reaches Wakimoto to the north of which is planned Wakimoto station. The section is generally level with the ruling gradient of 1 in 100 and the sharpest curve of 15 ch. radius.

With the establishment of a surveying office in the compounds of Akita station, the working survey of the section was taken in hand and completed in October, 1912, while the purchase of land for the section was finished to the extent of some 6 parts. The subsections between 9 m. and 8 m. 20 ch. from the Oiwake starting point, and between 8 m. 20 ch. and 12 m., which were commenced in November, 1912, and January, 1912, respectively, have made but a tardy progress owing to snow fall together with the insufficiency of time at disposal.

5. NAGAI LINE.

Akayu-Nashigo Section.—The line starts from Akayu station, 35 m. 19 ch. 78 lin. from the Fukushima starting point and keeping parallel to the main line which runs north, enters the town of Akayu where it intersects the Nagai road. Then turning left it proceeds through cultivated fields at Okinogo and crosses Nagai road before it reaches the town of Miyauchi where is to be located Miyauchi station. Further on the line bends to the left and crosses the river Hataori in the village of Urushiyama and turning right intersects the Nagai road before it reaches Nashigo station a little beyond which the line comes to its termination. The districts the line passes through is generally level, wide fields occupying the greater part of it. The ruling gradient is 1 in 100 and the sharpest curve of 15 ch. radius. Working survey on the section was started in April, 1912, while purchase of land was finished about 8 parts. The construction work on this section stated in September, 1912 was attended with some inconveniences arising out of the fact that the districts the section laid along being occupied with cultivated grounds, the greater portion of it afforded but a few places to be depended upon for the supply of earth, while the bridging work excepting over the river Hataorigawa and a few other culverts proved easy, 7 parts of it being already brought to completion.

2. Nashigo-Nagai Section.—The line starts from a point of 5 m. 0 ch. from the Akayu starting point, where the preceding section terminates, and heads west and turning right intersects the Nagai road beyond which it turns to the right, runs across the foot of a hill and turns left before it enters the village of Otsuka. Crossing the river Matsukawa the line pursues a westward course till it reaches where Sishitsuka station is to located. At Toyota the line intersects the Nagai road obliquely and then the Komatsu and Echigo roads and runs toward where is planned Imaizumi station. Then it proceeds straight through cultivated fields, crosses the river Shirakawa and arrives at where Tokiniwa station is to be located. Thenceforward the line proceeds through the village of Hirano till it enters the town of Nagai where is planned Nagai station. The districts the section is located along is generally level except the villages of Nashigo and Toyota, though somewhat more undulating than the preceding ones. The section measures 6 m. 50 ch. in length with the ruling gradient of one in 100 and the sharpest curve of 15 ch. radius. Working survey was started in July, 1912. The purchase of land was finished about 4 parts. The construction work was taken in hand in December, 1912 when the climatic condition prevented the work from making a fair progress, so that it was completed no more than two parts for the earth work, while bridging and other works were only prepared for. All the bridges numbering more than 40 constructed on this section were made of wood, except the Matsukawa and the Shirakawa bridge, the two largest ones to be laid over the upper course of the river Mogami.

6. INUKAI LINE.

1. Oita-Handa Section.—The line starts from Oita station and runs on the Saeki line as far as 0 m. 75 ch. 4 in. 42 where it turns right and departs from Saeki line. On crossing the river Oita the line

reaches the hamlet of Takio beyond which after several bends the line crosses the rivers Funabashi and Tsumori before it reaches Takio station planned to the west of Ikarshima. Then the line turns left and enters the village of Higashiueda where it crosses the river Aioi beyond which it runs in parallel to the main road. On crossing the river Nokita the line turns to the left and then to the right and intersects the main road and then crosses the river Shikito whereupon the line zigzags through a narrow valley till it reaches the Handa-toge beyond which crossing the river Takae finally attains its termination 5 m. 56 ch. 0 lin. The section measures 5 m. 58 ch. 4 lin. with the ruling gradient of 1 in 40 and the sharpest curve of 15 ch. radius.

2. Handa-Inukai Section.—The line starts from 5 m. 56 ch. 0 lin. where the Takio-Handa section terminates, and runs toward Nakahanda station via Kombukari. Further on it crosses the river Tachi-Onogawa, turns left and passes through the Inoyama tunnel before it enters the village of Takenaka. Beyond the river Hase the line keeps along the foot of hills till turning right it comes to the river Uchiura and then after making another turn to the right runs across the river Fuyuda. Thenceforward creeping along a narrow valley the line emerges upon the basin of the river Kawarauchi crossing which it passes through the Iwakami tunnel and reaches Hashito where is to be located Takenaka station. From whence the route runs in parallel to the Inukai road, bends along with it and comes to where precluding the way stands a precipice, pierceing which the line further proceeds on and turning left crosses the river Funawatari beyond which the Hanazaru tunnel is bored. Then it crosses the rivers Kanai and Tawara, and turning left passes Shimotsuo, crosses the river Shimotsuo and bending right reaches to where Inukai station is to be located, a little beyond which is reached the termination on the further side of the river Shibakita.

One half of the section, though hilly, was relieved here and there with cultivated fields and human dwellings, while the other half was laid through the districts where the presence of hills closing upon the river left but a little space for the railway to find its way. Accordingly, the section, 7 m. 29 ch. in length, is attended with a great deal of curves of which the sharpest one is of 14 ch. radius, the ruling gradient being 1 in 44.

7. MIYACHI LINE.

1. Kumamoto-Tatsutaguchi.—This line starts from Kumamoto station and terminates at Tatsutaguchi, a distance of 5 m. 49 ch. Immediately after its departure the line crosses the river Kasuga and intersects the Hyakkan road. Thenceforth it heads southeast, passes Tazaki district, turns left and crosses the river Tsuboi beyond which the line runs straight on as far as cultivated fields at Komachi. Then it proceeds across the river Shirakawa by way of Nihongi and arrives at Juzenji where making another bend to the left it intersects the Kagoshima road and then the Mifune road before it reaches Harutake station planned here. Then it turns right at Hachioji, enters the village of Izumi and turning left comes to the Kiyama road by the side of which is to be located Suizenji station. Then skirting the eastern extremity of the Watarijika parade ground in the village of O-e the line crosses the river No. 2 Shirakawa beyond which turning right it proceeds toward the village of Takita where is planned Tatsutaguchi station. The section measures 5 m. 49 ch. in length with the ruling gradient of 1 in 40 and the sharpest curve of 18 ch. radius

2. Tatsutaguchi-Minamikata Section. The line starts from the foot of Tatsuta hill and keeps in parallel with the track of the Dainippon Tramway Co. in a gradient of 1 in 40 as far as 5 m. 72 ch. where it deviates from the track and intersects the Oita road. Then passing through cultivated fields the line makes frequent turnings and gradually ascends till it comes to a place north of a hill popularly known by the name of "Muasashizaka." Here the line merges itself in the deserted road which runs in parallel to the Oita road till it departs from it in the western extremity of Karuki before it arrives at Minamikata. The section measures 6 m. 56 ch. in length with the ruling gradient of 1 in 100 and the sharpest curve of 15 ch. radius.

Working survey on the section was completed in July and August, 1912, while purchase of land is still in progress. The construction work started in December, 1912 has made no noteworthy progress.

The construction of a watchmen's box and other small buildings were complted.

8. YUBETSU LINE.

1. Nokkeushi-Rubeshibe Section.—The earthwork, bridging and other works on this section was taken in hand. With a view to bringing about a speedy completion of the whole work, the platelaying and ballasting were carried out in succession to the earth work, while the construction of No. 1 Mukagawa bridge was energetically proceeded with. The rest of the work comprised the erection of various station buildings an dequipments, such as main and accessory houses, platforms, loading stages, water tanks, official residences, accommodations, overbridges, etc., on the completion of which the section was opened to traffic on November 18th, 1913.

2. Rubeshibe-Shimoikutahara.—The line starts from

Rubeshibe station, 14 m. 23 ch. from the Nokkeushi mark station and terminates at Shimoikutahara station, 34 m. 30 ch. from the same mark station, a distance of 18 m. 47 ch. The line at the outset bends a little to the left and proceeds in parallel to the river Muka as far as es it. Then making several more turnings it crosses the 15 m. 60 ch. from the mark station where the line cross-river a second time and reaches 19 m. 20 ch. where is to be located Hommuka station. Thenceforward the line runs in a gradient of 1 in 40 along the left side of the Hommuka river which flows close to mountains till it attains the borders between the disricts of Tokoro and Monbetsu where the Tokomon tunnel is bored. From here the line makes descent in different degrees of gradient and crosses several rivers till it emerges upon the right bank of the river Ikutara where is planned Kamiikutahara station. The rest of the section mostly keeps near the river, crossing it altogether three times till it finally makes Shimoikutahara station. The section measures 18 m. 47 ch., with the ruling gradient of 1 in 40 and the sharpest curve of 15 ch. radius.

The section between Rubeshibe and Tokomon tunnel started in April, 1912, was completed about 9 parts, construction cars having begun to be operated thereon. The boring of the Tokomon tunnel was finished in December 1912, while the remaining work carried on in succession thereto was completed about 8 parts. Besides these, was also carried out the construction of an engine house, loading stage, etc.

The earth and bridging works, though started in January, 1913 were not completed owing to snowfall, except the erection of temporary quarters and accessory buildings, and the collection and conveyance of the materials for the work.

9. MANJI LINE. (SHIBUN-MANJI)

The section from Shibun to Takinoue starts from near Shibun station 82 m. 64 ch. and immediately crosses the river Horomuki and then the Yubari road, whereupon the line heads northeast running across the road leading from Muroran to Asahigawa as far as a point of 1 in 15 ch. from the mark station where it crosses the Horomuki a second time and proceeds in parallel to the main road. Then it intersects the road leading from Shigun to Manji and runs through a plain towards Shibun station. Further on it pursues a eastern course crossing the river Nai, intersecting the Manji road and then crossing the river Horomuki a third time before it reaches a point of 6 m. 40 ch. where it turns left and runs straight on till after crossing the Horomuki a fourth time it finally attains its termination.

A contract for the earth and bridge work was made for starting it early next year, while a provisional cabin was erected to keep the cement to be used for bridging work for the No. 2 and 3 Horomuji rivers.

10. IWANAI LINE. (KOZAMA-IWANAI).

The construction on the this section continued from the preceding year was completed in October, 1912, the section being opened for sevice on the 1st of the succeeding month.

11. KAMIISO LINE. (GORYOKAKU- KAMIISO).

The line starts from Goryokaku station, 2 m. 11 ch. and turning left at 0 m. 14 ch. 57 lin. heads north-west till it emerges upon the coast where the line intersects a road leading from Hakodate to Esashi and crosses the river Tokiwa before it reaches Kunebetsu provisional station via Kamiiso districts. On crossing the river Arikawa the line enters the village of Kamiiso, crosses the river Yamato and then turning left crosses the rivers Togiripi, Iibu, etc. Then it proceeds round the town of Kamiiso till it reaches Kamiiso station beyond which the line heads west as far as 14 m. \$7 ch. a point near the Hokkaido Cement Co.'s building. The line measures 5 m. 63 ch. with the ruling gradient of 1 in 100 and the sharpest curve of 20 ch. radius.

The construction work on this section started in October, 1913 has made a fair progress, 9 parts of it being completed.

REMAINDER CONSTRUCTION WORKS.

1, O-U LINE.

Yonezawa-Yamagata and Yuzawa-Yokote Sections. —Weighbridges installed, sheds constructed and plate-machines, provision of additional electric lamps at the Tsuchizaki Works, and flooring of part of the shop, pro-

laying for the sidings carried out at Yamagata and Yokote stations.

Akita-Odate Section.—Plate-laying, provision of truck scale and the construction of a shed for electric motors at No. 2 Works, all continuede from the preceding year, was completed.

2. TORA LINE.

Yamada-Toba Section.—The construction of pitching for the embankment near 7 m. from the Yamada starting point on the Sangu line continued from the preceding year, and the construction of watchmen's box at Matsubaramichi and three other level crossings, and the installation of iron frameworks of turntable at Toba station, started during the year, were all completed.

3. SAN-YO LINE.

Fukuchiyama Line.—Purchase of land was effected with a view to the establishment of an engine and vehicle mending shop between Yonago and Goto stations. The work carried out for the section consisted of additional ballasting, extension of stone fences, etc. as well as the laying of line which was started toward the end of the year.

4. BOSO LINE.

Soga-Anegasaki Section.—Strengthening of the base of bridge piers and the provision of fascine works for the river Yoro on the Goi-Anegasaki section were completed, while the provision of the switch for the cross-over on the Soga and one other station premises, and the construction of stone fences at Tsuchinoma by the river Yoro were finished about 6 parts and about 7 parts, respectively.

5. OITA LINE.

Yanagigaura-Oita Section.—The remainder works on this section which was opened for traffic during the preceding year, consisted of the erection of official residences and Oita roundhouse, the former being completed in June, 1912, and the latter in September of the same year.

6. KAGOSHIMA LINE.

The construction of an overbridge at Kagoshima station was started in February, 1913, and already completed about 5 parts in spite of the insufficient time at disposal.

Land, over 5 cho 8 tan in area, necessary for the erection of the Kagoshima Works was purchased.

7. BUMOI LINE.

Additional ballasting on the track continued from the preceding year was completed.

8. KUSHIRO LINE.

Ashigawa-Kushiro Section.—The reconstruction of underdrains at 47 m. 15 ch. 226 lin. and other places and of No. 2 Satsunaigawa and one other bridge, the laying of girders for bridges and culverts at 50 m. 43 ch. 33 lin. and 5 other points and similar work for the culvert at 60 m. 9 ch. 70 lin., all continued from the preceding year, was completed. The work started during the present year was finished as regards the reconstruction of No. 4 and No. 6 Atsunaigawa bridge and the construction of the Tobetsugawa bridge, the enlargement and remodelling of goods sheds at Toyokoro and one other station, and provision of a weighbridge and the construction of sheds for same at Ikeda station, the erection of official residences at Kushiro station, the construction of snow screens at 127 m. 18 ch. from the Sorachibuto starting point, while the reconstruction of bridges over the rivers Rebunna and Tekereppu at 60 m. 59 ch. 36 lin. and 4 other points is now in progress.

10. SAPPORO WORKS.

The construction of fitting shop, tin shop and casting shop started during the year was completed 2 parts, while the filling work connected therewith was finished 3 parts. Besides these there were carried out the erection of quarters for officials in charge of the work, and the removal and reconstruction of the various buildings in existence.

10. TAKATORI WORKS.

The filling work in connection with the laying of sidings, extension of the Tenjogawa bridge, works relating to the under drains, and removal of various buildings, were carried out. The removal of sidings, the provision and removal of buffer stop, provision of interlocking apparatus and the reconstruction and increase of signal apparatus in connection with the above work, were completed.

The works relating to the electric shop are completed as regards the removal, remodelling and enlargement of part of it.

The erection of fitting and lathe shop started during the year is completed 1, 2 parts.

CHAPTER XVI.

EXPERIMENTS AND TESTS.

(1) CHEMICAL EXPERIMENTS ON RAILWAY MATERIALS.

Chemical experiments carried out on cement, coal, brick, oils and other railway materials numbered 6,247 cases, made up as follows:—

Cement (Volcanic ashes included)	3,357
Coal	165
Brick	745
Oils	464
Stone	76
Sand	2
Clay	10
Concrete	20
Metals	397
Paints	235
Indian rubber	33
Woolen cloth (*Kokura* fabric included)	324
Water-Proof cloth	76
Medicines	19
Water	104
Thermometers, standard hydrometers, and manometers	267
Insulators	34
Soap	8
Scales	11
Total	6,347

(2) TESTS ON THE STRENGTH OF METALS

Tests conducted on the strength of metals for railway use numbered 247 cases, made up as follows:—

Ingot iron	85
Ingot steel	27
Iron	49
Castings	16

Copper	9
Rails	9
Axles	5
Tyres for locos	11
Shaft-coupling	2
Draw-bar	3
Rivets	5
Electric cables	5
Chords and belts	5
Springs	10
Tube iron and steet	4
Implements	2
Total	247

Misroscopic testing on iron was inaugurated in the year.

(3) TRAIN LIGHTING.

Investigation was conduced as to the merits of coal gas and acetylene as a substitute for Pinch gas.

(4) TESTING ON THE STRAINS OF BRIDGES AND THE OSSCILLATION OF TRAINS.

Testing was carried out on the strength of the bridges over the river Oigawa, Tokaido line, and the river Saikawa, Shin-Etsu line, on the shock of the bridge over No. 1 Usui, Shin-Etsu line, on the oscillation of the bridge over the river Karasugawa, North Eastern line, on the strains of the bridge over the river Sumida, North Eastern line, and of the girders on the Omiya station premises, North Eastern line, and on the oscillation of trains running on the section between Ryogoku-bashi and Ohara stations, Sobu line.

(5) TRIAL MANUFACTURE OF VOLUMETERS.

Investigation is now in progress as to the volumeters manufactured for tentative purposes.

CHAPTER XVII.

RELIEF ASSOCIATION.

(1) MEMBERSHIP.

The roll of the Association on March 31st, 1913 comprised 99,923 representing 90.9 per cent. of the total employees of the Imperial Government Railways (190,932). These are classified as under:—

A class	84,808
B class	709
C class	14,406
Total	99,928

N.B.—A class comprises those who are engaged in outdoor work and contribute to the Fund 3 per cent. of their monthly stipends, and B class comprised employees or inferiors employed in office work or regular clerks who join the Association at their own option. Members of either class must be in the service for at least 6 months, age-limit being between 15 and 50 year. C class covers all those members who do not come under either A or B class and are not therefore required to contribute to the Fund.

The above are further classified as under according to kind of service:—

Station service	34,544
Engine house service	19,479
Maintenance of way service	16,462
Workshop service	17,503
Others	10,935

The following table shows the growth of members for five years since the inception of the Association:—

At the end of year	No.	Inc. or dec. (△) against preceding year
1907	77,922	—
1908	77,842	△ 80
1909	79,088	1,246
1910	84,096	5,008
1911	90,717	6,621
1912	99,923	9,206

During the year under review, 32,757 were admitted into the Association, being classified as under:—

Newly engaged in railway service	32,577
Transferred from indoor to outdoor service	153
Admitted on their own initiative	27

23,551 members were struck off the list, the secessions being accounted for a follows:—

Retired from railway service	21,089
Promoted to officials of the *hannin* rank or transferred to the indoor service	516
Summoned by the army or the navy	1,144
Died	800

The following shows the mortalities of the membership classified as to causes:—

	Year under review	Preceding year
Death from injuries sustained on duty	248	231
Death from injuries sustained not on duty	24	12
Suicide	7	13
Death from natural causes	521	507
Total	800	763

Mortalities caused by injuries sustained on duty and not on duty are classified as follows according to kind of service:—

	Death from injuries sustained	
	on duty	not on duty
Station service	153	10
Engine house service	28	7
Maintenance of way service	42	3
Workshop service	13	2
Miscellaneous	12	2
Total	248	24

As regards death caused by injuries sustained on duty, 89 or 5.8 per cent. out of the 153 cases of station service are accounted for by coupler hands and porters, while out of the 42 cases of maintenance of way service 37 or 88 per cent. are claimed by trackmen, the mortalities being for the most part attributable to heavy bruises.

Death from natural causes is classified as under:—

Kind	No.
Troubles in respiratory organs	217
„ digestive organs	93
„ nervous system or sense organs	58
Acute epidemics	44
Troubles in blood circulation	28
Uriogenital diseases	15
Kakke	13
Miscellaneous	35
Total	215

Cases of the pulmonary tuberculosis account for 53 per cent. of the returns, being 11 per cent. less than in the preceding years.

The following table shows the number of mortalities out of every 10,000 due to the troubles in the respiratory and the digestive organs:—

	Mortalities from respiratory organ troubles	Mortalities from digestive organ troubles
Station service	24.8	8.7
Engine house service	17.5	7.7
Workshop service	10.3	11.5
Maintenance of way service	20.6	10.9

From the above it will be seen that the troubles in the respiratory organs figure highest in the station and workshop services, and those in the digestive in the maintenance of way service

Though the total cases of mortality reached a big number of 890, it may be regarded as a reassuring sign that the record fell short of the estimated rate of mortality of 912 by more than 100.

The following shows the membership as classified by age. (The figures given below under "age" do not represent the results computed on the ordinary twelve-month basis, but are the number of consecutive calender years each cases has actually lived in, inclusive of the year of his birth and the year under review).

12–19	10,528
20–29	42,909
30–39	29,432
40–49	12,796
50–59	3,655
60–69	586
above 70	17

The average age of the same according to the jurisdiction is given as follows:—

	Year
Eastern Division	30.4
Central Division	31.1
Western Division	30.9
Kyushu Division	28.6
Hokkaido Division	30.5
Construction Offices	32.6
Head Office	30.7
Average of total	30.3

Those ranging between 12 and 19 years of age account for a little less than 11 per cent. of the total, those between 20 and 29 for a little less than 43 per cent., those between 30 and 39 for a little over 29 per cent. and those between 40 and 49 for a little less than 13 per cent., while those above 50 represent no more than 4 per cent. and a little over, the highest percentage belonging to those between 20 and 26, and especially to those of 26 years old.

(2) REVENUE.

During the year the revenue of the Association totalled 1,009,422.29 *yen* consisting of 367,226.58 *yen* on account of Government subsidy, 524,222.75 *yen* of subscriptions from the members, 64,859.61 *yen* of bank interest, 32,645 *yen* of interest on bonds, 18,251.34 *yen* of receipts from the Tokiwa Hospital, 293.83 *yen* of contributions from the interested public and 1,923.18 *yen* of miscellaneous receipts.

(3) DISBURSEMENTS.

The amount of disbursements paid out of the coffers of the Association during the year aggregated 538,044.48 *yen* consisting of 139,697.26 *yen* for 624 death grants, 146,584.40 *yen* for 751 injury grants, 527.87 *yen* for 10 old age grants (interest included), 96,008.27 *yen* for medical allowance made to 7,788 cases (including 2,394.23 *yen* paid to the Osaka Branch Hospital of the Red Cross Society), 107,308.14 *yen* for repayments made to 8,107 cases, 30,248.93 *yen* on account of the Hospital expenses, 8,410.54 *yen* for the dressing rooms expenses represented by 10,665 cases, and 9,359.07 *yen* for the buildings, tools and machine expenses.

The following table shows the amount of each item of the grants and payments as averaged per capita:—

	Year under review	Preceding year	Inc. or dec. (△)
	yen	*yen*	*yen*
Death grants	223.87	218.87	5.00
Injury grants	195.19	206.13	△ 10.94
Old age grants	51.98	—	—
Interest on above	.81	—	—
Medical allowance	12.02	13.79	△ 1.77
Repayments	13.22	11.95	1.27
Dressing rooms expenses	.79	.45	.34

The injury grants given in the above table are classified as follows according to grade of injury:—

Grade	No.	Amount	per capita
1st	228	89,989.50	394.69
2nd	9	3,259.80	362.20
3rd	121	24,122.20	199.36
4th	160	22,316.10	139.48
5th	233	6,896.80	29.60
Total	751	146,584.40	195.19

Death grants are, again, made up of 34,205.17 *yen* represented by 167 cases of mortality caused by injuries on duty, and of 105,492.09 *yen* represented by 457 cases of death not due to discharge of duty. Out of the total figures 30 are claimed by trackmen, 28 by coupler hands, 18 by pointmen, 17 porters, 9 by goods porters, 8 by conductors and yardmen, respectively, and 6 by level-crossing watchmen, the rate per 10,000 of the total member being as under:—

Coupler Hands	173.7
Yardmen	67.6
Pointmen	42.6
Goods Porters	26.8
Trackmen	25.1
Conductors	22.6
Level-Crossing watchmen	20.8
Porters	19.8

The following shows the members awarded old age grants which were created during the year:—

Kind.	No.	Amount
Yardman	1	55.20
Car inspectors	2	117.30
Level-crossing watchman	1	29.90
Car cleaner	1	32.20
Woodworkers	3	204.69
Trackman	1	38.33
Carpenter, of regular employ	1	42.17
Total	10	519.79

During the year under review 7,788 cases received medical allowances, the total sum awarded being 93,614.04 *yen*. In reviewing the allowances in case, it will be noted that the injuries sustained by the workshop people are mostly slight, though their rate of injuries are relatively high; while as regards the injuries of employees connected with station, engine house and maintenance services, quite the reverse is the case, these being generally lower in the rate, but heavier in nature.

In confining our attention to those cases granted 1,000 *yen* or over, it is seen that on the list of the workshop people the highest rate of injuries belongs to boiler shop mechanics, their cases working out to 320.4 out of every 1,000 men on the list at the end of the year. This is followed by assistant mechanics with 314.8, smiths with 287.3, erecting shop workmen with 267.9 and wood-workers with 138.7.

Then adverting to the medical allowances paid to them as averaged per capita of the membership on the roll, it is found that boiler shop mechanics head the list with 2.277 *yen*, followed in order by erecting shop workmen with 1.801 *yen*, smiths with 1.698 *yen*, assistant mechanics with 1.568 *yen* and kood-workers with 1.123 *yen*. Further, as regards the amount of medical allowances averaged per capita of the total number of the injured, wood-workers come up first with 8.093 *yen*

followed by boiler shop people with 7.107 *yen*, erecting shop mechanics with 6.725 *yen*, smiths with 5.913 *yen* and assistant mechanics with 4.98 *yen*.

On the other hand, with the employees connected with station, engine and maintenance services, the highest rate of injuries is found to belong to coupler hands with their cases working out to a rate of 285.3 out of every 1,000 on the roll at the end of the year. They are followed by coal-and-pumping men with 98.1, goods porters with 83.8, brakemen with 78.6, firemen with 75.2, engine cleaners with 72.9, labourers of regular employ with 65.3, yardmen with 60, engine drivers and trackmen with 44.7 respectively.

Again as regards the amount of medical allowance averaged per capita of the membership, coupler hands also figure foremost with 8.019 *yen* followed by brakemen with 1,933 *yen*, yardmen with 1.503 *yen*, goods porters with 1,217 *yen*, porters with 1.184 *yen* and coal-and-pumping men with 1.08 *yen*.

On averaging the above sum per capita of the total of the injured, the results are 30.831 *yen* for pointmen, 30.353 *yen* for porters, 28.102 *yen* for coupler hands, 25.062 *yen* for yardmen, 24.611 *yen* for brakemen and 20.35 *yen* for conductors.

During the year under review 751 members were allowed injury grants amounting to 146,584.40 *yen*. The first grade injuries comprised 228 cases, consisting of 53 coupler hands with 17,212.50 *yen* (*i.e.* 324.76 *yen* per capita), of 34 porters with 9,580.50 *yen* (*i.e.* 281.78 *yen* per capita), of 34 trackmen with 14,643 *yen* (*i.e.* 430.68 *yen* per capita), of 18 pointmen with 8,253 *yen* (*i.e.* 458.50 *yen* per capita), of 12 goods porters with 4,797 *yen* (i.e. 399.75 *yen* per capita), of 9 conductors with 4,239 *yen* (*i.e.* 471 *yen* per capita), 8 yardmen with 4,882.50 *yen* (*i.e.* 610.31 *yen* per capita) and 6 firemen with 2,187 *yen* (*i.e.* 364.50 *yen* per capita), etc.

The second grade injuries comprised 9 cases, consisting of 3 coupler hands with 772.20 *yen* (*i.e.* 257.40 *yen* per capita), one brakeman with 453.60 *yen* and one erecting shop workman with 528 *yen*, etc.

The third grade injuries comprised 121 cases, consisting of 30 porters with 4,213.50 *yen* (*i.e.* 140.45 *yen* per capita), of 33 coupler hands with 3,839.70 *yen* (*i.e.* 166,94 *yen* per capita), of 13 trackmen with 2,815.80 *yen* (*i.e.* 216.60 *yen* per capita), of 7 boiler shop people with 2,088.60 *yen* (*i.e.* 298.37 *yen* per capita), and 5 brakemen with 856.20 *yen* (*i.e.* 171.24 *yen* per capita).

The fourth grade injuries comprised 160 cases, consisting of 19 coupler hands with 1,987.80 *yen* (*i.e.* 104.62 *yen* per capita), of 17 porters with 1,635.90 *yen* (*i.e.* 96.23 *yen* per capita), of 14 trackmen with 1,698.60 *yen* (*i.e.* 121.33 *yen* per capita), of 13 smiths with 2,377.20 *yen* (*i.e.* 182.86 *yen* per capital), of 10 goods porters with 1,277.10 *yen* (*i.e.* 127.71 *yen*), of 10 wood-workers with 1,751.40 *yen* (*i.e.* 175.14 *yen* per capita), etc.

The fifth grade injuries comprised 233 cases, consisting of 28 coupler hands with 719.40 *yen* (*i.e.* 25.69 *yen* per capita), of 21 trackmen with 540 *yen* (*i.e.* 25.71 *yen* per capita), 20 erecting shop mechanics with 661.80 *yen* (*i.e.* 33.09 *yen* per capita), of 18 boiler shop mechanics with 685.20 *yen* (*i.e.* 38.07 *yen* per capita), 19 assistant mechanics with 261.90 *yen* (*i.e.* 14.55 *yen* per capita), 17 wood-workers with 566.10 *yen* (*i.e.* 33.30 *yen* per capita), 15 porters with 323.40 *yen* (*i.e.* 21.56 *yen* per capita), etc.

Turning, then, to the percentage of the injured under each grade to the total membership on the roll, the highest rate under first grade belongs to coupler hands, being 328.8 out of every 10,000 of the total members on the list. Next come yardmen with 67.6, brakemen with 44.1, pointmen with 42.6, porters with 39.7 and goods porters with 35.8.

Under the second grade coupler hands head the list with 18.6 followed in order by brakemen with 8.8 and erecting shop mechanics with 4.6.

Under the third grade coupler hands stand first with 142.7, brakemen second with 44.1 and boiler shop mechanics with 36.7, porters with 35 and coal-and-pumping men with 13.6.

Under the fourth grade coupler hands, too, come up first with 117.8 followed by smiths with 101.5, boiler shop mechanics with 47.2, erecting shop workmen with 41, brakemen with 35.3 and lathe shop workmen with 30.2.

Under the fifth grade the highest rate belongs to coupler hands with 173.7 followed in order by lathe shop mechanics with 120.8, smiths with 101.5, boiler shop mechanics with 94.4, erecting shop mechanics with 91 and brakemen with 53.

Then observing the general features of the injuries returned under the foregoing five grades, it is found that coupler hands with 126 figure foremost, porters next with 96, trackmen with 82, pointmen with 37, boiler shop workmen with 36, erecting shop people with 33, goods porters and wood workers with 29, respectively, smiths with 28, and assistant mechanics with 27.

The following shows the rate of injuries out of every 10000 of the members:—

Coupler hands	781.5
Smiths	218.6
Boiler shop mechanics	188.8
Brakemen	185.3
Lathe shop workmen	161.1
Erecting shop people	145.8
Yardmen	126.7
Porters	121.1
Pointmen	87.5
Wood workers	86.5

Goods porters	86.4
Trackmen	68.4
Assistant mechanics	62.5

The percentage of the above injuries as classified according to grade, is given below:—

Employees	1st grade	2nd grade	3rd grade	4th grade	5th grade
Coupler hands	42	2	18	15	23
Brakemen	24	5	24	19	28
Yardmen	53	—	13	7	27
Porters	35	—	31	18	16
Pointmen	49	—	11	19	21
Goods porters	42	—	10	34	14
Trackmen	41	—	16	17	26
Smiths	4	—	4	46	46
Boiler shop mechanics	6	—	19	25	50
Lathe shop people	—	—	6	19	75
Erecting shop people	3	3	3	28	63
Wood-workers	—	3	3	35	59
Assistant mechanics	11	—	—	22	67

Thus it will be seen that, as in the case of injury grants, injuries of heavier nature are in evidence among the employees on station, engine house and maintenance service than workshop people.

(4) DRESSING ROOMS.

Besides the four dressing rooms located at the Omiya, the Shimbashi, the Kobe and the Takatori Works two new dressing rooms were created at Yokkaichi and Kokura, the former being opened in May and the latter in June, 1913. The number of members subjected to medical treatment at the rooms and the expenses paid out of the coffers of the Association were 2,481 cases realising 1,552.17 *yen* for the Omiya Works, 3,451 cases with 2,420.96 *yen* for the Shimbashi, 522 cases with 436. *yen* for the Yokkaichi, 1,663 cases with 1,262.83 *yen* for the Kobe, 1745 cases with 1,240.43 *yen* for the Takatori, 800 cases with 1,497.70 *yen* and 10,665 case with 8,410.54 *yen* for the total.

The expenses as averaged per capita of the persons treated work out to .63 *yen* for the Omiya Works, .70 *yen* for the Shimbashi, .84 *yen* for the Yokkaichi, .76 *yen* for the Kobe, .71 *yen* for the Takatori, 1.87 *yen* for the Kokura and .79 *yen* for the total.

(5) TOKIWA HOSPITAL.

The Tokiwa Hospital consists of six sections, *i.e.* internal, surgery, ophtalmology, otorhinolaryngology, and dermo-urinology. Dentistry section was opened in September, 1912. Patients are divided into three classes, the first class being composed of those injured on duty, the second of passengers and the third of officials and employees and their families. The following shows the in-patients as classified according to the sections and classes:—

Description	1st clss		2nd class Injuries		2nd class Diseases		3rd class Employees		3rd class Families		Total		
	male	*female*	*male*	*female*	*male*	*female*	*male*	*female*	*male*	*female*	*male*	*female*	*total*
Internal	14	—	—	—	—	—	34	—	14	12	62	12	74
Surgery	187	—	3	1	—	—	24	—	27	15	241	16	257
Ophthalmology	31	—	1	—	—	—	15	—	4	1	51	1	52
Otorhinolaryngology	3	—	—	—	—	—	65	—	45	26	113	26	139
Dermo-urinology	1	—	—	—	—	—	26	—	11	1	38	1	39
Total	236	—	4	1	—	—	164	—	101	55	505	56	561

The out-patients who received treatment at the Hospital are made up as follow:—

Internal	Surgery	Ophthalmology	Otorhinolaryngology	Dermo-urinology	Total
2,061	1,723	1,065	941	885	6,666

The accounts for the Hospital during the year under review show 34,161.56 *yen* for receipts and 31,112.22 *yen* for disbursements.

(6) INJURY GRANTS ACCOUNT.

The excess of disbursements over receipts on the injury grants account claims special explanation. The abstract of the account for 1912 is given as under:—

Receipts:—	*yen*
Subscriptions from members of A and C classes (one-hundredth of the total of their salaries and wages)	185,353.54
Subscriptions from members of B class (one fifth of the total contributions)	4,393.07
Total	189,746.61
Disbursements:—	
Injury Grants	146,584.40
Medical Allowance	96,008.27
Dressing Rooms Expenses	8,410.54
Expenses on the Injured on duty (paid to the Tokiwa Hospital)	15,462.28
Total	266,465.49
Deficit	76,718.88

The following shows the proportion of disbursements on account of injuries to one-hundredth of the total of salaries and wages, (*i.e.* half the sum of Government subsidy in each year since the inception of the Association):—

Year	%
1907	.56
1908	1.73
1909	2.29
1910	1.59
1911	1.48
1912	1.44

A markedly small percentage for 1907 is accounted for by the fact that a large proportion of cases that took place during the year were carried forward to the next year's account. It is also noteworthy that the record for each year shows an excess of the actual returns over the estimates to the extent of between 40 and 50 per cent., the climax being reached in 1909. Though the percentage shows a gradual decline since 1910, it is regrettable that the excess is still in evidence to an appreciable degree.

(7) ASSETS AND LIABILITIES ACCOUNT.

The following shows the assets and liabilities of the Association on March 31, 1913.

Assets	*yen*
Current Deposit	40,137.60
Fixed Deposit	1,100,000.00
Negotiable Bonds	834,547.00
Bank Interest receivable	12,937.49
Interest on Bonds receivable	16,875.80
Warrant Money	4,800.00
Government Subsidies receivable	32,502.86
Subscriptions from Members receivable	14,599.20
Hospital Receipts unsettled	869.74
Advances	2,656.16
Tools and Machinery	9,168.02
Total	2,069,093.87

Liabilities	*yen*
Legal Reserve	2,008,685.71
Grants, Medical allowance, and Refunds payable	22,028.22
Security Money kept in custody, etc.	230.12
Total	2,030,944.05
Balance (carried forward to the next year)	38,149.82

(8) ACTUAL ACCOUNT OF RECEIPTS AND DISBUSEMENTS.

The following is the actual account of receipts and disbursements during the year under review:—

Receipts:—	*yen*
Government Subsidy	367,226.58
Subscriptions from Members	524,222.75
Bank Interest	64,859.61
Interest on Bonds	32,645.00
Receipts from the Hospital	18,251.34
Contributions from the Public	293.83
Sundries	1,903.97
Amount payable	18.09
Advance payable	1.12
Total	1,009,422.29
Brought over from last year's account	1,510,763.95
Grand Total	2,520,185.24

Disbursements:—	
Death Grants	139,697.260
Injury Grants	146,584.400
Old Age Grants	519.790
Interest on Old Age Grants	8.080
Medical Allowance	96,008.270
Repayments	107,208.140
Hospital Expenses	30,248.930
Dressing Room Expenses	8,410.540
Buildings, Tools and Machinery	9,250.915
Losses	108.155
Total	538,044.480
Balance (carried forward to the next year's account)	1,982,140.760
Grand Total	2,520,185.240

CHAPTER XVIII.

RAILWAY MUSEUM.

(1) COLLECTION OF RAILWAY APPLIANCES AND OTHER OBJECTS OF INTEREST.

With a view to creating in a few years a Railway Museum, as referred to in the preceding Report, efforts were made toward completing the collection, the number of exhibits got together during the year totalling 817 pieces (including 233 photos and 35 picture post cards), made up as under:—

Class.	No.
Permanent Way	331
Building	93
Signal	17
Traffic	79
Electricity	19
Workshop	66
Rolling Stock	91
Supervision	31
Articles for General Reference	28
Miscellaneous	62

It is worth mentioning with gratitude that some of the railway appliances used on the occasion of the funeral of the Emperor Meiji were granted toward the collection of exhibits, the articles being kept in custody at the storerooms of the Tokyo Division pending the establishment of the building. Further, unserviciable Imperial carriages Nos. 1 and 2 were struck off the list and added to the collection.

(2) RAILWAY EXHIBITION.

A partial lease of the stores in charge of the Railway Museum Committee was granted for the exhibition of railway appliances and other objects of interest undertaken by the Imperial Railway Association on the occasion of it annual meeting convoked in Tokyo. The exhibits were kept open to the inspection of the members as well as of the public from 25th to 31st May, 1912, while along with them some of the collection of the Railway Museum were also put on show with a view to introducting to the public in general the projected establishment of the Museum and to invite their co-operation toward completing the collection. It is gratifying to note that the function proved successful, as it indeed served an occasion for a marked increase of contributors of exhibits.

(3) EXHIBITS MADE AT THE COLONIAL EXHIBITION AND THE TRAVELLERS' EXHIBITION.

A model of the Temiya Elevated Coal Staith was put on show at the Colonial Exhibition opened in Ueno Park, Tokyo, in October, 1912, while at the Travellers' Exhibition held in Osaka from February 15th to March 28th, 1913, were also exhibited a number of photos illustrative of the progress of locomotives and rolling stock as well as other articles of interest.

TABLES AND DIAGRAMS

Table No. I.

GENERAL STATISTICS

Item	Jurisdiction	Unit	Eastern Division	Central Division	Western Division	Kyushu Division	Hokkaido Division	Year under review	Inc. or dec. (△) against preceding year
Mileage worked	Length of lines worked	*m. c.*	1,384.17	1,130.56	1,236.09	613.00	853.14	5,217.16	173.76
	single	,,	1,265.57	813.69	1,065.72	555.03	796.51	4,497.12	138.37
	double	,,	116.27	313.63	170.17	57.77	56.43	714.67	35.39
	triple	,,	—	.40	—	—	—	.40	—
	quadruple	,,	.60	2.44	—	—	—	3.24	△ 1.33
	quintuple	,,	.56	—	—	—	—	.56	.56
	sextuple	,,	.57	—	—	—	—	.57	.57
Stations, etc.	Ordinary stations		340	287	369	167	175	1,338	50
	Passenger stations		5	6	2	1	—	14	—
	Goods stations		5	3	5	44	2	59	△ 4
	Rural stations		—	—	11	2	2	15	10
	Electric car stands		—	15	—	—	—	15	—
	Steam motor car stands		—	—	—	—	—	—	△ 4
	Total		350	311	387	214	179	1,441	52
	Temporary stations		—	3	6	1	2	12	△ 1
	Temporary platforms		—	—	4	1	—	5	△ 1
	Passenger, parcels and luggage offices		—	—	1	—	—	1	—
	Booking offices		—	—	—	1	1	2	—
	Parcels and luggage offices		—	2	1	1	—	4	—
	Parcels and goods offices		—	1	—	2	1	4	—
	City railway offices		—	3	3	—	—	6	—
	Junction stations		2	2	1	3	—	8	△ 1
	Signal stations		14	18	17	8	1	58	10
	Coaling-and-pumping stations		—	—	—	—	1	1	—
	Car inspection stations		1	7	—	—	—	8	—
	Telegraph connection rings		6	6	9	3	5	29	...
	Maintenance stations		34	17	26	15	17	109	1

Rolling Stock	Locomotives		651	640	548	297	245	2,381		76
	Carriages		1,405	1,600	2,069	645	341	6,060		243
	Wagons		30,219			5,843	4,465	40,527		2,575
	Electric trams		—	72	—	—	—	72		6
	Steam motor cars	*Unit*	—	—	10	2	—	12		8
Shipping	Steamers		6	—	21	—	2	29		1
	Gross tonnage of steamers	*ton*	5,436.06	—	13,853.00	—	61.70	19,350.76	△	220.54
	Lighters		23	—	44	—	21	88		0
	Navigation mileage	*nautical mile*	60.0	—	187.8	—	—	247.8	△	124.0
Engine and Car Sheds	Engine sheds		29	27	28	17	15	116	△	3
	do., branch	*No.*	6	3	14	—	5	28		9
	Electric car sheds	„	2	2	—	—	—	4		2
Electric Equipment	Stations accepting public telegrams		230	176	253	132	100	891		29
	Length of wires of electric power cable	*ri. cho. ken*	116 20.44	173.26.55	48.13.07	32.10.31	17.18.34	388.17.51		92.25.21
	Length of wires of telegraphic communication circuits.	„	6,021.17.13	5,155.35.24	4,609.34.44	1,946.02.32	3,489.35.32	21,223.17.25		3,775.20.50
	Electric lights		9,878	13,739	11,350	4,344	4,609	43,920		8,058
	Power stations		3	3	6	4	4	20		2
	Transformer stations		4	3	2	1	1	11		3
Works	Works		4	4	8	3	5	24		—
Permanent Way and Land	Aggregate length of tracks	*m. c.*	1,935.36	1,863.55	1,838.17	949.30	1,187.68	7,774.46		350.19
	„ bridges	*ft.*	129,521	147,983	228,118	101,156	76,715	683,493		27,479
	„ tunnels	„	117,000	237,424	175,863	84,167	38,656	653,110		13,575
	Area of buildings	*tsubo*	613,419	493,435	530,829	232,885	266,345	2,136,913		79,565
	„ premises	„	13,539 582	12,611,936	12,108,034	6,524,027	27,710,512	72,494,091		5,188,635
Officials and Employees	Officials and employees		25,369	28,121	26,250	14,316	10,819	104,875		5,512
	Monthly salaries and wages	*yen*	456,441.76	528.043.55	502.549.68	251,8co 76	212.733,65	1,951,569.40		131,061.38
Capital	Capital	*yen*	Special	205,343,909		Borrowed	727,327.371	932,671,280		60,441,282

Table No. I.

GENERAL STATISTICS—*Continued.*

Item	Jurisdiction	Unit	Eastern Division	Central Division	Western Division	Kyushu Division	Hokkaido Division	Year under review	Inc. or dec. (△) against preceding year
Transportation	Train mileage	*mile*	14,030,144	14,554,011	13,795,225	6,803,390	4,811,162	53,993,932	5,263,148
	Vehicle mileage	,,	264,074,326	264,382,266	238,433,620	127,162,237	94,203,538	988,255,987	88,626,134
	No. of passengers carried	,,	32,254,148	58,311,955	54,818,773	15,867,217	5,434,879	160,711,737	9,633,958
	do. carried one mile	,,	745,467,165	1,182,588,851	1,198,350,875	324,738,478	175,171,130	3,626,316,499	243,730,088
	Receipts from passengers	*yen*	10,480,365	15,957,929	16,257,734	4,802,417	2,495,150	49,993,595	3,127,281
	Tonnage of goods hauled	*ton*	7,397,709	7,701,445	6,244,538	11,514,395	3,875,104	32,537,345	3,200,291
	do. hauled one mile	,,	801,847,541	683,829,492	525,360,314	392,385,883	288,040,944	2,691,464,174	343,592,699
	Receipts from goods	*yen*	13,446,060	12,372,182	9,343,663	8,831,600	5,211,258	49,204,763	3,630,581
Working	Locomotive mileage	*mile*	16,946,933.4	18,039,597.7	15,599,172.0	8,292,405.3	5,874,931.6	64,753,040.0	6,780,847.3
	Car mileage	,,	284,415,382.0	292,645,484.0	263,590,698.9	152,294,493.3	90,719,502.2	1,083,665,560.4	118,744,058.4
	Fuel consumed for running	*kin*	858,551,251	671,284,508	536,967,393	253,510,996	327,162,917	2,647,477,065	362,955,795
	do. (valued)	*yen*	1,563,129	2,614,926	1,627,752	543,366	534,507	6,883,680	809,124
	Oil consumed for running	*koku*	3,928	5,019	3,487	1,531	1,171	15,136	1,141
	do. (valued)	*yen*	73,953	98,806	69,319	32,367	25,046	299,491	15,841
Rolling Stock built or repaired	Engines & rolling stock newly built — Locos		—	—	—	—	—	78	△ 8
	Engines & rolling stock newly built — Pass. cars		—	—	—	—	—	259	△ 3
	Engines & rolling stock newly built — Goods wagons		—	—	—	—	—	2,808	535
	Engines & rolling stock newly repaired — Locos		1,147	327	323	271	258	2,326	119
	Engines & rolling stock newly repaired — Pass. cars		2,474	2,444	4,090	668	647	10,323	25
	Engines & rolling stock newly repaired — Goods wagons		18,544	11,083	24,434	6,557	14,002	74,620	205
Electricity	No. of telegrams — Railway		8,478,907	13,567,584	10,846,164	3,317,536	4,533,085	40,743,276	2,626,286
	No. of telegrams — Public		1,433,643	1,464,693	1,683,510	1,113,891	809,257	6,504,994	194,180
	No. of telegrams — Total		9,912,550	15,032,277	12,529,674	4,431,427	5,342,342	47,248,270	2,820,466
	Volume of current generated	*k. w. h.*	4,255,319	3,458,937	2,504,810	576,354	935,895	11,731,315	4,428,000

Accounting	Receipts	*yen*	—	—	—	—	—	108,025,637	7,845,819
	Working expenses	,,	—	—	—	—	—	50,013,647	4,245,392
	Net profit	,,	—	—	—	—	—	58,011,990	3,600,427
Stores	Purchase — Home	*yen*	—	—	—	—	—	36,287,754	2,542,613
	Purchase — Foreign	,,	—	—	—	—	—	6,075,619	1,251,928
	Purchase — Total	,,	—	—	—	—	—	42,363,373	1,290,685
Maintenance and Improvement	Maintenance expenses	*yen*	—	—	—	—	—	11,352,503	1,195,793
	Additional expenses	,,	—	—	—	—	—	2,060,743	217,641
	Improvement expenses	,,	—	—	—	—	—	31,017,765	1,780,952
	Grand total	,,	—	—	—	—	—	44,431,011	3,194,386
Construction	Construction expenses	*yen*	—	—	—	—	—	28,233,137	8,269,653
	Length of lines constructed according to individual lines	*m. c.*	Moka L. 10.20	Boso L. 10.06	Toyama L. 30.68	Yamaguchi L. 7.74		170.65	3 49
		,,	Daisha ,, 4.52	Shibata ,, 16.14	Iwanai ,, 9.23				
		,,	Kurayoshi ,, 2.50	Miyazaki ,, 16.55	Teshio ,, 10.54				
		,,	Kuroishi ,, 4.06	Abashiri ,, 33.31	Yubetsu ,, 14.12				
Relief Association	Membership	*yen*	—	—	—	—	—	99,923	9,206
	Subscriptions	,,	—	—	—	—	—	524,223	73,091
	Government subsidy	,,	—	—	—	—	—	367,226	36,809
	Revenue from other sources	,,	—	—	—	—	—	117,973	36,867
	Revenue	,,	—	—	—	—	—	1,009,422	146,767
	Disbursements	,,	—	—	—	—	—	538,044	26,325
	Members allowed grants, etc.	,,	—	—	—	—	—	35,182	2,545

N. B.—The 'Mileage worked according' to jurisdiction given in the above table does not exactly tally with the same as given in Table II, the former being measured from the point where each jurisdiction begins as against the station which is adopted as starting point in computing the mileage of the latter.

The returns of officials and employees of the above table do not include those belonging to the sections and offices of the Head Office and to the district construction offices, to the amount of 5,108 representing Y143,175.07 of monthly sum of salaries and wages.

The returns of rolling stock as shown above do not include Imperial carriages.

Table No. II.

TRAIN MILEAGE.

Item \ Jurisdiction	Eastern Division		Central Division		Western Division		Kyushu Division		Hokkaido Division		Grand total.	
	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year
	mile	*mile*	*mile*	*mile*	*mile*	*mile*	*mile*	*mile*	*mile*	*mile*	*mile*	*mile*
Mileage worked	1,382.0	24.5	1,131.6	49.0	1,236.8	15.1	613.2	16.7	853.4	67.6	5,217.0	172.9
Average mileage worked during the year ...	1,376.6	31.4	1,104.5	29.6	1,228.6	43.9	604.8	13.1	815.4	61.6	5,129.9	179.6
Passenger train mileage	4,094,627	492,101	6,338,482	778,272	6,728,186	645,294	1,890,266	569,539	797,793	166,707	19,849,354	2,651,913
Goods train mileage...	5,882,907	492,965	5,994,581	692,216	3,926,363	562,539	3,166,548	527,391	1,934,291	220,978	20,904,690	2,496,089
Mixed train mileage	4,027,346	90,669	1,777,521	210,010	3,121,621	93,437	1,736,731	△ 227,089	2,079,078	267,201	12,742,297	14,208
Electric tram mileage	25,264	978	443,427	85,830	—	—	—	—	—	—	468,691	86,808
Steam motor car mileage...	—	—	—	—	19,055	16,371	9,845	△ 2,241	—	—	28,900	14,130
Total	14,030,144	1,076,713	14,554,011	1,346,308	13,795,225	1,317,641	6,803,390	867,600	4,811,162	654,886	53,993,932	5,263,148
Average train mileage per day	38,439	3,047	39,874	3,787	37,795	3,703	18,630	2,421	13,181	1,825	147,929	14,785
Average No. of trains per day	27.9	1.6	36.1	2.5	30.8	2.0	30.8	3.4	16.2	1.1	28.8	1.9

N. B.—The mileage travelled by electric trams and steam motor cars is computed on the basis of 10 cars=1 train.

Table No. III.

VEHICLE MILEAGE.

Item \ Jurisdiction	Eastern Division		Central Division		Western Division		Kyushu Division		Hokkaido Division		Grand total	
	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year
Pass. carriages :—	*mile*	*mile*	*mile*	*mile*	*mile*	*mile*	*mile*	*mile*	*mile*	*mile*	*mile*	*mile*
Vehicle mileage (passenger train)	46,985,951	5,737,953	76,719,696	10,460,613	83,397,515	9,504,507	21,336,984	4,569,453	7,724,258	1,272,939	236,164,404	31,544,865
„ „ (goods train)	24,086,576	506,890	12,449,489	△ 1,176,781	22,922,425	976,905	10,055,896	△ 1,503,626	11,702,865	1,958,537	81,217,251	672,015
„ „ (mixed train)	685,021	19,036	1,095,335	75,571	738,910	49,056	208,965	△ 47,849	178,045	61,017	2,906,276	156,831
Electric tram mileage...	252,644	9,806	4,434,270	858,288	—	—	—	—	—	—	4,686,914	868,094
Steam motor car mileage	—	—	—	—	190,375	163,528	98,415	△ 22,405	—	—	288,790	141,123
Total	72,010,192	6,273,085	94,668,790	10,217,691	107,249,225	10,694,086	31,700,260	2,905,573	19,605,168	3,292,493	325,263,635	33,382,928
Goods wagons :—												
Vehicle mileage (goods train)	147,008,030	10,770,482	150,469,173	18,443,196	100,941,347	13,617,173	79,116,306	10,315,001	51,035,354	3,373,521	528,570,210	56,519,373
„ „ (passenger train)	43,198,076	△ 2,246,845	11,397,515	△ 2,935,087	20,042,740	5,039,649	14,325,738	△ 2,012,283	23,555,240	263,482	112,519,309	△ 1,891,084
„ „ (mixed train)	1,858,028	881,741	7,816,788	△ 236,911	10,200,308	△ 1,630,101	2,019,933	2,019,933	7,776	△ 419,745	21,902,833	614,917
Total	192,064,134	9,405,378	169,683,476	15,271,198	131,184,395	17,026,721	95,461,977	10,322,651	74,598,370	3,217,258	662,992,352	55,243,200
Grand total	264,074,326	15,678,463	264,382,266	25,488,889	238,433,620	27,720,807	127,162,237	13,228,224	94,203,538	6,509,751	988,255,987	88,626,134

Table No. IV.

TRAFFIC RECEIPTS

Item \ Jurisdiction	Eastern Division		Central Division		Western Division		Kyushu Division		Hokkaido Division		Grand total	
	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year
Traffic receipts ... ... Coaching	*yen* 11,340,456	935,047	17,473,157	1,319,080	17,648,233	995,221	5,144,477	176,665	2,699,690	205,741	54,306,013	3,631,754
Wagon	„ 13,451,803	662,186	12,377,828	900,217	9,422,890	1,054,455	8,852,299	766,479	5,272,853	318,643	49,377,673	3,701,980
Total...	„ 24,792,259	1,597,223	29,850,985	2,219,297	27,071,123	2,049,676	13,996,776	943,144	7,972,543	524,384	103,683,686	7,333,734
Average receipts per mile	„ 18,009.78	766.97	27,026.70	1,320.41	22,034.12	913.63	23,142.82	1,081.59	9,777.46	△ 103.36	20,211.46	748.18
Average receipts per day per mile	„ 49.34	2.23	74.05	3.81	60.37	2.66	63.40	3.12	26.79	△ .21	55.37	2.19
Receipts from steamships	„ 708,360	75,478	—	—	1,432,478	△ 33,938	—	—	—	—	2,140,838	41,540
Grand total...	„ 25,500,619	1,672,711	29,850,985	2,210,297	28,503,601	2,015.738	13,996,776	943,144	7,972,543	524,384	105,824,524	7,375 274
Average receipts per day	„ 69.865	4,761	81,784	6,288	78,092	5,721	38,347	2,681	21,843	1,493	289,830	20,943

Table No. V.

RESULTS OF PASSENGER TRAFFIC

Item \ Jurisdiction		Eastern Diviston		Central Division		Western Division		Kyushu Division		Hokkaido Division		Grand total	
		Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year
Mileage worked	*mile*	1,376.2	24.5	1,122.9	52.4	1,232.0	13.8	586.4	20.0	853.4	69.3	5,170.9	180.0
Average mileage worked	,,	1,370.8	31.4	1,096.6	32.6	1,225.0	45.8	577.0	14.9	814.8	62.7	5,084.2	187.4
Train mileage	,,	6,022,284	643,450	7,644,272	751,352	8,418,625	585,765	2,858,348	330,189	1,820,260	401,375	26,763,789	2,712,140
Vehicle mileage	,,	72,010,192	6,273,085	64,698,790	10,217,691	107,249,225	10,694,086	31,700,260	2,905,573	19,605,168	3,292,493	325,263,635	33,382,928
Average number of cars per train		12.0	△ .2	12.4	.1	12.7	.4	11.1	△ .3	10.8	△ .7	12.2	.1
Aggregate car days				2,332,344	151,734			319,028	14 037	159,034	22,792	2,810,406	188,563
Average vehicle mileage per day per car				117	4			99	5	123	3	116	5
No. of passengers — 1st class	,,	32 424	1,280	255,458	15,240	201,290	18,308	33,723	△ 5,608	2,715	△ 251	470,237	26,135
No. of passengers — 2nd class	,,	1,209,556	71,005	2,910,834	148,162	2,748,286	162,966	808,646	2,874	246,931	9,914	7,414,035	345,920
No. of passengers — 3rd class	,,	31,012,168	1,948,074	55,145,663	4,061,514	51,869,197	2,671,778	15,024,848	100,224	185,233	392,065	152,827,465	9,261,903
No. of passengers — Total	,,	32,254,148	2,020,359	58,311,955	4,224,916	54,818,773	2,853,052	15,867,217	97,490	5,434,879	401,728	160,711,737	9,633,958
Average numbers of passengers per day	,,	88,368	5,762	159 759	11,980	150,188	8,205	43,472	385	14,890	1,138	440,306	27,525
No. of passengers carried one mile — 1st class	,,	3,741,618	73,176	15,828,149	1,217,055	11,307,878	487,926	2,154,829	△ 54,212	416,785	35,690	33,539,259	1,759,635
No. of passengers carried one mile — 2nd class	,,	61,278,170	5,745,741	136,784,604	10,207,643	122,560,560	13,595,814	32.667,635	2,502,629	14 616,624	1,244,725	367,907,593	33,386,552
No. of passengers carried one mile — 3rd class	,,	680,447,377	58,056 148	1,029,976 098	52,000,712	1,064,392,437	78,602,932	289,916,014	6,710,863	160,137,721	13,121,246	3,224,869,647	208,583,901
No. of passengers carried one mile — Total	,,	745,467,165	63,875,065	1,182,588,851	63,517,410	1,198,350,875	92,686,67-	324,738,478	9 249,280	175,171,130	14,401,661	3,626,316 499	243,730,088
Average mileage of journey per passenger — 1st class	,,	115.4	△ 2.4	62.0	1.2	56.6	△ 3.0	63.9	7.7	153.5	25.0	71.3	△ .3
Average mileage of journey per passenger — 2nd class	,,	50.7	1.9	47.0	1.2	44.6	2.5	40 4	3.1	59.2	2.8	49.6	2.3
Average mileage of journey per passenger — 3rd class	,,	21.9	.5	18.7	△ .4	20.5	.5	19.3	.3	30.9	.2	21.1	.1
Average mileage of journey per passenger — Total	,,	23.1	.6	20.3	△ .4	21.9	.6	20 5	.5	32.2	.3	22.6	.2
Average No of passengers per day per mile worked	,,	543,819	34,940	1,078,414	26,655	678,229	40 59(	502,80;	1,536	214.987	1,226	713,252	22,477
Average No. of passengers per mile worked	,,	1,490	100	2,955	81	2,680	118	1,542	8	589	5	1,954	67
Average No. of passengers per train mile	,,	123.8	△ 2.6	154.7	△ 7.7	142.3	1.1	313.6	△ 11.2	96.2	△ 17.1	135.5	△ 5.1
Average No. of passengers per vehicle mile	,,	10.4	—	12.5	△ .7	11.2	△ .3	10.2	△ .8	8.9	△ 1.0	11.1	△ .5

RESULTS OF PASSENGER TRAFFIC.—*Continued.*

Item	Jurisdiction	Eastern Division		Central Division		Western Division		Kyushu Division		Hokkaido Division		Grand total	
		Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year
Coaching Receipts — Fares — 1st class	*yen*	118,202	674	520,206	53,262	395,133	45,048	67,351	△ 573	14,483	798	1,115,375	99,209
Fares — 2nd class	„	1,178,810	120,877	2,601,645	244,895	2,316,309	298,348	653,839	47,251	299,964	16,123	7,050,567	727,494
Fares — 3rd class	„	9,183,353	728,812	12,836,078	858,670	13,546,292	471,593	4,081,227	70,862	2,180,703	170,641	41,827,653	2,300,578
Fares — Total	„	10,480,365	850,363	15,957,929	1,156,827	16,257,734	814,989	4,802,417	117,540	2,495,150	187,562	49,993,595	3,127,281
Parcels and luggage	„	562,808	72,946	1,085,001	149,300	968,709	145,410	237,496	57,056	112,850	7,320	2,966,864	432,032
Postal matter	„	237,744	5,342	318,927	2,956	346,999	27,986	79,321	△ 308	68,484	8,937	1,051,475	44,913
Platform tickets	„	42,124	2,743	80,004	5,191	43,370	5,908	16,958	1,259	17,149	1,226	199,605	16,333
Sundry	„	17,415	3,647	31,296	4,806	31,421	928	8,285	1,118	6,057	696	94,474	11,195
Total	„	11,340,456	935,047	17,473,157	1,319,080	17,648,233	995,221	5,144,477	176,665	2,690,690	205,741	54,305,013	3,631,754
Average coaching receipts per day	„	31,070	2,640	47,872	3,735	48,351	2,851	14,094	521	7,396	582	148,784	10,330
Average coaching receipts per mile worked.	„	8,273	504	15,934	752	14,407	285	8,916	.78	3,313	△ 3	10,681	333
Average daily receipts per mile worked	„	22.67	1.44	43.65	2.17	39.47	.88	24.43	.28	9.08	.02	29.26	.99
Average coaching receipts per train mile	„	1.88	△ .05	2.29	△ .05	2.10	△ .03	1.80	△ .16	1.48	△ .28	2.03	△ .08
Average coaching receipts per vehicle mile.	„	.157	△ .001	.185	△ .006	.165	△ .007	.162	△ .011	.138	△ .015	.167	△ .007
Average daily receipts per mile worked				19.92	.10			16.13	△ .16	16.98	△ 1.33	19.32	△ .01
Average receipts per passenger — 1st class	*yen*	3.65	.12	2.04	.10	1.97	.06	2.00	.27	5.33	.72	2.37	.08
Average receipts per passenger — 2nd class	„	.97	.04	.89	.04	.84	.06	.81	.06	1.21	.01	.95	.06
Average receipts per passenger — 3rd class	„	.30	.01	.23	—	.26	△ .01	.27	—	.42	—	.27	△ .01
Average receipts per passenger — Total	„	.32	—	.27	—	.30	—	.30	—	.46	—	.31	—
Average receipts per passenger per mile — 1st class	„	.0316	△ .0004	.0329	.0009	.0347	.0026	.0313	.0006	.0347	△ .0012	.0333	.0013
Average receipts per passenger per mile — 2nd class	„	.0192	.0001	.0190	.0004	.0189	.0004	.0200	△ .0002	.0205	△ .0007	.0192	.0003
Average receipts per passenger per mile — 3rd class	„	.0135	△ .0001	.0125	.0003	.0127	△ .0006	.0141	△ .0001	.0136	△ .0001	.0130	△ .0001
Average receipts per passenger per mile — Total	„	.0141	—	.0135	.0003	.0136	△ .0004	.0148	—	.0142	△ .0002	.0138	△ .0001
Tonnage of parcels and luggage (exclusive of postal matter)	*ton*	24,173	6,020	38,263	6,799	36,013	9,078	7,877	2,100	3,154	266	109,480	24,263
Average receipts per ton of parcels and luggage	*yen*	23.28	△ 3.71	38.36	△ 1.38	26.90	△ 3.67	30.15	△ 1.08	35.78	△ .76	27.10	△ 2.65

Table No. VI.

RESULTS OF GOODS TRAFFIC.

Item	Jurisdiction	Eastern Division		Central Division		Western Division		Kyushu Division		Hokkaido Division		Total	
		Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) a ainst preceding year	Year under review	Inc. or dec. (△) against preceding year
Mileage worked	*mile*	1,381.3	24.5	1,128.5	48.8	1,236.8	15.1	613.2	16.7	853.4	67.6	5,213.2	172.7
Average mileage worked	,,	1,375.9	31.4	1,101.4	29.4	1,228.6	43.9	604.8	13.1	815.4	61.6	5,826.1	170.4
Train mileage	,,	8,007,860	433,254	6,909,739	594,956	5,376,600	731,876	3,945,042	537,411	2,990,902	253,511	27,230,143	2,551,008
Vehicle mileage	,,	192,064,134	9,405,376	169,683,476	15,271,198	131,184,395	17,026,721	95,461,977	10,322,651	74,598,370	3,217,258	662,992,352	55,243,206
Empty wagon mileage	,,	45,115,176	△ 282,836	33,319,546	4,138,174	21,282,293	1,985,369	33,194,805	2,712,786	26,454,344	409,484	159,366,164	8,962,977
Empty wagon mileage per 100 vehicle miles.	,,	22	△ 3	20	1	16	1	35	△ 1	35	△ 1	24	△ 1
Average number of vehicles per train	No.	24.0	△ 1	24.6	.1	24.4	△ .2	24.2	△ .8	24.9	△ 1.2	24.3	△ .3
Aggregate car days					12,587,074	1,072,274				1,767,185	87,972	14,356,259	1,160,246
Average daily mileage per wagon					*mile* 47	—				42	—	46	—
Tonnage of goods — Ordinary consignment	*ton*	3,186	△ 127	22,209	1,250	16,023	△ 606	1,316	△ 147	925	93	25,352	△ 1,292
Tonnage of goods — Express ,,	,,	842,771	72,288	924,068	96,875	1,028 345	45,793	351,694	25,995	269,653	17,478	2,998,720	187,518
Tonnage of goods — Carload ,,	,,	6,551,752	754,971	6,755,168	1,035,600	5,200,170	491,725	11,161,385	1,090,766	3,604,526	273,897	29,513,273	3,014,065
Tonnage of goods — Total	,,	7,397,709	827,132	7,701,445	1,131,225	6,244,538	536,912	11,514,395	1,116,614	3,875,104	291,468	32,537,345	3,200,291
Average tonnage of goods per day	,,	20,268	2,316	21,100	3,149	17,108	1,513	31,546	3,137	10,617	826	89,143	8,987
Tonnage of goods handled one mile — Ordinary consignment	*mile*	522,802	△ 40,776	4,424,853	292,354	1,742,729	△ 49,079	137,763	△ 15,548	135,485	4,237	6,963,632	△ 393,520
Tonnage of goods handled one mile — Express ,,	,,	73,279,480	6,546,090	74,304,598	11,201,190	97,686,876	875,838	19,313,213	1 809,945	18,661,950	2,306,508	283,246,117	22,739,571
Tonnage of goods handled one mile — Carload ,,	,,	728,045,250	83,161,065	605,100,041	80,712,834	425,930,709	77,657,569	372,934,907	51,607,177	269,243,509	28,108,003	2,401,254,425	321,246,648
Tonnage of goods handled one mile — Total	,,	801,847,541	89,666.379	683,829,492	91,621,670	525 360,314	78,484,328	392,385,883	53 401,574	288,040,944	30,418,748	2,691,464,174	343,592,699
Average mileage of goods per ton — Ordinary consignment	,,	164.1	△ 6 0	199.2	1.9	108.8	1.0	104.7	△ .1	146.5	△ 11.3	274.7	△ 1.4
Average mileage of goods per ton — Express ,,	,,	87 0	.4	80.4	4.1	95.0	△ 3.5	54.9	1.2	69.2	4.3	94.5	1.8
Average mileage of goods per ton — Carload ,,	,,	111.1	△ .1	89.6	2.1	81.9	7.9	33 4	1.5	74.7	2.3	81.4	2.9
Average mileage of goods per ton — Total	,,	108.4	—	88.8	1.3	84.1	5.8	34.1	1.5	74.3	2.4	82.7	2.7
Average tonnage of goods per mile worked.	*ton*	582,780	53,080	620,873	68,666	427,609	50,359	648,786	75,887	353,251	11 750	525,851	50,417
Average tonnage of goods per day per mile.	,,	1,597	150	1,701	193	1,172	141	1,777	212	968	35	1,439	142
Average tonnage of goods per train mile...	,,	100.1	6.1	99.0	5.0	97.7	1.5	99.5	.0	96.3	2.2	98.8	3.7
Average tonnage per vehicle mile	,,	4.2	.3	4.0	.2	4.0	.1	4.1	.1	3.9	.3	4.1	.2
do. (exclusive of empty vehicle mileage)	,,	5.5	.3	5.0	.3	4.8	.1	6.3	.1	6.0	.3	5.3	.2

RESULTS OF GOODS TRAFFIC.—*Continued.*

Item \ Jurisdiction		Eastern Division			Central Division			Western Division			Kyushu Division			Hokkaido Division			Total		
			Year under review	Inc. or dec. (△) against preceding year		Year under review	Inc. or dec. (△) against preceding year		Year under review	Inc. or dec. (△) against preceding year		Year under review	Inc. or dec. (△) against preceding year		Year under review	Inc. or dec. (△) against preceding year		Year under review	Inc. or dec. (△) against preceding year
Goods receipts	Ordinary consignment	*yen*	44,360	△ 3,237		386,105	23,074		148,807	△ 15,454		10,465	△ 545		14,743	1,882		604,480	* 40,428
	Express „	„	764,364			2,935,128			2,707,914			812,786			693,135			9,913,327	
	Carload „	„	965,160	664,469		8,438,254	929,829		5,897,269	1,070,130		6,901,254	749,656		4,034,957	256,925		35,236,894	3,671,000
	Total	„	672,176			612,695			589,673			1,107,095			468,423			3,450,062	
	Terminal charges	„	446,060	661,232		12,372,182	906,755		9,343,063	1,054,676		8,831,600	749,111		5,211,258	258,867		49,204,793	3,630,581
	Sundries	„	5,743	954		5,646	△ 6,538		79,227	△ 221		20,609	17,368		61,595	59,836		172,910	71,399
	Grand total	„	451,803	662,186		12,377,828	900,217		9,422,890	1,054,455		8,852,209	766,479		5,272,853	318,643		49,377,673	3,701,980
Average goods receipts per day		„	36,854	1,910		33,912	2,552		25,816	2,951		24,253	2,161		14,446	910		135,281	10,484
Average goods receipts per mile worked		„	9,777	264		11,238	535		7,670	608		14,637	972		6,467	△ 105		9,633	399
Average daily goods receipts per mile worked.		„	26.79	.80		30.79	1.55		21.01	1.71		40.10	2.76		17.72	△ .24		26.39	1.16
Average goods receipts per train mile		„	1.68	.01		1.79	△ .03		1.75	△ .05		2.24	△ .13		1.76	△ .05		1.81	△ .04
Average goods receipts per vehicle mile		„	.070	△ .000		.073	△ .001		.072	△ .001		.093	△ .002		.071	.002		.075	.000
do.	(exclusive of empty vehicle mileage).	„	.092	△ .001		.091	△ .001		.086	△ .002		.142	△ .006		.110	.001		.098	△ .002
Average goods receipts per day per wagon									3.50	△ .04					2.98	.03		3.44	△ .02
Average rate per ton	Ordinary consignment	*yen*	13.92	△ .45		17.39	△ .05		9.29	△ .59		7.95	.42		15.94	.48		23.84	△ .36
	Express „	„	1.81	△ .13		1.56	△ .13		1.48	.05		.77	△ .01		1.34	.04		1.49	△ 04
	Carload „																		
	Total	„	1.82	△ .13		1.61	△ .14		1.50	.05		.77	.01		1.34	△ .04		1.51	△ .04
Average terminal charges per ton		„	.0849	.0004		.0873	.0006		.0854	△ .0063		.0760	△ .0042		.1088	.0108		.0868	△ .0009
Average receipts per ton per mile	Ordinary consignment	„	.0167	△ .0012		.0176	△ .0012		.0176	△ .0007		.0225	△ .0013		.0180	△ .0012		.0181	△ .0011
	Express „																		
	Carload „																		
	Total	„	.0168	△ .0012		.0181	△ .0013		.0178	△ .0007		.0225	△ .0013		.0180	△ .0011		.0183	△ .0011

Table No. VII.

RESULTS OF SHIPPING SERVICE.

Route	Item	Distance of route		Specified mileage worked		Number of voyages		Passengers						Cargo	
								Not connected with railways		Connected with railways	Connected with railways	Total		Not connected with railways	
		Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year
		mile	*mile*	*mile*	*mile*	*time*	*time*							*ton*	*ton*
Eastern Division	Aomori—Hakodate	60.0	0	190.0	0	1,691	134	48,126	△ 586	261,112	20,622	309,328	20,236	42,676	1,122
Western Division	Shimonoseki-Fusan	122.0	0	150.0	0	1,453	203	32,080	3,554	168,594	21,618	200,674	25,172	8,669	590
	Shimonoseki-Moji	1.5	0	10.0	0	11,790	172	273,335	59,624	563,825	12,865	837,187	72,489	339	273
	Uno-Takamatsu	11.0	0	15.0	0	4,920	△ 29	16,535	△ 17,620	213,537	25,287	230,072	7,767	53	△ 7
	Takamatsu-Tosho—*discontinued*	—	—	—	—		△ 1,330								
	Miyajima-Itsukushima	1.3	0	2.0	0	10,307	△ 74	143,958	△ 10,236	221,222	△ 19,113	365,180	△ 29,349	—	—
	Maizuru-Miyazu	16.2	0	21.0	0	2,870	77	42,648	△ 7,926	64,253	△ 127	106,901	△ 8,053	480	△ 140
	Maizuru-Obama	29.5	0	35.0	0	492	△ 26	3,268	△ 663	2,523	△ 619	5,791	△ 1,282	505	△ 145
	Ferry service in Miyazu Bay	6.3	0	—	0	2,530	81	27,386	△ 6,635	—	—	27,386	△ 6,635	1,615	10
	Maizuru-Sakai—*discontinued*	—	△ 124.0	—	△ 150.0	—	△ 527	—	△ 1,755	—	△ 22,371	—	△ 24,126	45	△ 420
	Provisional: Uno-Utsumi	—	—	—	—	—	△ 64	—	△ 525	—	△ 1,993	—	△ 2,518	—	—
	Provisional: Kobe-Wakamatsu	—	—	—	—	—	△ 1	—	—	—	△ 87	—	△ 87	—	—
	Total	187.8	△ 24.0	233.0	△ 150.0	34,362	1,518	538,806	17,999	1,233,081	15,636	1,772,787	△ 33,635	11,543	△ 436
Grand total		247.8	△ 124.0	333.0	△ 150.0	36,053	△ 1,384	587,022	17,613	1,495,093	36,258	2,082,115	53,781	54,219	△ 686

RESULTS OF SHIPPING SERVICE—*Continued.*

Route	Item	Cargo: Connected with railways: Year under review	Cargo: Connected with railways: Inc. or dec. (△) against preceding year	Cargo: Total: Year under review	Cargo: Total: Inc. or dec. (△) against preceding year	Parcels & luggage: Year under review	Parcels & luggage: Inc. or dec. (△) against preceding year	Receipts from: Passenger: Year under review	Receipts from: Passenger: Inc. or dec. (△) against preceding year	Receipts from: Cargo: Year under review	Receipts from: Cargo: Inc. or dec. (△) against preceding year	Receipts from: Parcels & luggage: Year under review	Receipts from: Parcels & luggage: Inc. or dec. (△) against preceding year	Receipts from: Postal matter: Year under review	Receipts from: Postal matter: Inc. or dec. (△) against preceding year	Receipts from: Sum total: Year under review	Receipts from: Sum total: Inc. or dec. (△) against preceding year
		ton	*ton*	*ton*	*ton*	*ton*	*ton*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
Eastern Division	Aomori—Hakodate	96,703	26,915	139,379	25,793	253,452	62,064	334,747	28,075	341,266	45,099	11,094	2,129	21,253	175	708,360	75,478
Western Division	Shimonoseki-Fusan	83,430	9,665	92,099	10,255	236,787	40,636	675,283	53,465	245,452	26,702	31,465	4,067	61,381	9,716	1,013,581	93,950
	Shimonoseki-Moji	257,936	119,893	258,275	120,166	686,676	87,997	86,191	8,079	147,169	63,034	14,487	1,837	1,693	△ 4	249,540	72,955
	Uno-Takamatsu	8,992	1,096	9,045	1,089	87,084	3,576	66,209	2,197	15,292	2,321	1,742	106	792	△ 265	84,035	4,359
	Takamatsu-Tosho—*discontinued* ...																
	Miyajima-Itsukushima	—	—	—	—	5,466	771	19,299	△ 164	—	—	54	8	96	0	19,449	△ 156
	Maizuru-Miyazu	8,370	856	8,850	716	22,285	1,851	39,618	△ 2,688	10,489	420	1,122	113	1,009	181	52,238	△ 1,974
	Maizuru-Obama	2,404	336	2,909	△ 481	4,047	1,271	3,822	△ 752	5,386	△ 606	260	63	—	—	9,468	△ 1,295
	Ferry service in Miyazu Bay... ...	—	—	1,645	10	545	545	2,399	△ 561	1,692	6	76	76	—	—	4,167	△ 479
	Maizuru-Sakai.—*discontinued*	—	△ 44,924	-	△ 45,344	-	△ 63,640	—	△ 70,334	—	△ 115,849	—	△ 6,310	—	△ 3,650	—	△ 196,143
	Provisional { Uno-Utsumi	—	—	—	—	—	—	—	△ 927	—	-	—	—	—	—	—	△ 927
	Provisional { Kobe-Wakamatsu ...	—	—	—	—	—	—	—	△ 4,228	—	—	—	—	—	—	—	△ 4,228
	Total	361,132	86,697	372,675	87,133	1,042,890	73,007	892,821	△ 15,913	425,480	△ 23,963	49,206	△ 40	64,911	△ 5,978	1,432,478	△ 33,938
Grand total		457,835	113,612	512,054	112,926	1,296,342	135,071	1,227,568	12,162	766,746	21,136	60,300	2,089	86,224	6,153	2,140,888	41,540

Table No. VIII.

LOCOMOTIVE AT THE END OF THE YEAR.

Class	Jurisdiction	Eastern Division		Central Division		Western Division		Kyushu Division		Hokkaido Division						Grand total		Inc. or dec. (△) against preceding year	
												For Light Railways		Total					
		No.	Tonnage	No.	Tonnage	No.	Tonnage	No.	Tonnage	No.	Tonnage	No.	Tonnage	No.	Tonnage	No.	Tonnage		
			ton		*ton*		*ton*		*ton*		*ton*		*ton*		*ton*		*ton*		
Tank engines	4-wheel coupled — 4-wheels	—	—	1	9.95	7	140.00	21	468.90	2	44.30	—	—	2	44.30	31	663.15	△	—
	4-wheel coupled — 6-wheels	—	—	3	59.00	6	146.80	—	—	—	—	—	—	—	—	9	205.80	△	2
	4-wheel coupled — 8-wheels	66	2,331.19	58	1,944.03	130	4,584.31	5	147.75	1	34.50	—	—	1	34.50	260	9,041.78		—
	4-wheel coupled — Total	66	2,331.19	62	2,012.98	143	4,871.11	26	616.65	3	78.80	—	—	3	78.80	300	9,910.73	△	2
	6-wheel coupled — 6-wheels	59	2,138,79	48	1,623.75	36	1,112.47	41	1,314.38	13	428.27	3	45.60	16	473.87	200	6,663,26	△	5
	6-wheel coupled — 8-wheels	124	5,979.10	259	12,533.20	33	1,463.43	45	2,077.80	39	1,882.60	—	—	39	1,882.60	500	23,936.13	△	28
	6-wheel coupled — 10-wheels	35	1,909.30	26	1,243,75	56	2,574.94	54	2,439.54	8	315.81	—	—	8	315.81	179	8,483.34	△	27
	6-wheel coupled — 12-wheels	4	215.72	2	116.63	9	509.28	—	—	—	—	—	—	—	—	15	841.65		—
	6-wheel coupled — Total	222	10,242.91	335	15,517.35	134	5,660.12	140	5,831.72	60	2,626.68	3	45.60	63	2,672.28	891	39,924.38	△	6
	8-wheel coupled — 8-wheels	—	—	—	—	—	—	3	120.54	2	78.58	—	—	2	78.58	5	199.12		—
	10-wheel coupled — 10-wheels	4	246.40	—	—	—	—	—	—	—	—	—	—	—	—	4	246.40		4
	Abt 6-wheel coupled — 6-wheels	7	260.75	—	—	—	—	—	—	—	—	—	—	—	—	7	260.75		—
	Abt 6-wheel coupled — 8-wheels	2	107.20	—	—	—	—	—	—	—	—	—	—	—	—	2	107.20		—
	Abt 6-wheel coupled — 10-wheels	16	913.60	—	—	—	—	—	—	—	—	—	—	—	—	16	913.60		—
	Abt 6-wheel coupled — Total	25	1,281.55	—	—	—	—	—	—	—	—	—	—	—	—	25	1,281.55		—
	Mallet 4-wheel coupled — 8-wheels	—	—	2	85.45	—	—	—	—	—	—	—	—	—	—	2	85.45		—
	Total	317	14,102.05	399	17,615.78	277	10,531.23	169	6,568.91	65	2,784,406	3	45,60	68	2,829.66	1,230	51,647.63	△	4
Tender engines	4-wheel coupled — 6-wheels	—	—	2	84.80	—	—	—	—	—	—	—	—	—	—	2	84.80		—
	4-wheel coupled — 8-wheels	159	8,936.71	171	9,260.99	179	9,899.81	43	2,495.48	16	994.40	—	—	16	994.40	568	31,587.39		29
	4-wheel coupled — 10-wheels	24	1,715.65	—	—	—	—	—	—	—	—	—	—	—	—	24	1,715.65		—
	4-wheel coupled — Total	183	10,652.36	173	9,345.79	179	9,899.81	43	2,495.48	16	994.40	—	—	16	994.40	594	33,387.84		29
	6-wheel coupled — 6-wheels	—	—	3	111.55	1	37.85	—	—	4	105.84	—	—	4	105.84	8	257.24		—
	6-wheel coupled — 8-wheels	36	2,476.62	12	732.00	60	3,617.42	75	4,553.61	94	862.33	—	—	94	4,862.33	778	16,241.98		—
	6-wheel coupled — 10-wheels	7	608.41	20	1,724.12	12	962.40	—	—	—	—	—	—	—	—	39	3,294.93		3
	6-wheel coupled — 12-wheels	—	—	19	1,910.45	17	1,724.80	—	—	—	—	—	—	—	—	30	3,635.25		12
	6-wheel coupled — Total	46	3,085.03	54	4,480.12	90	6,342.47	73	4,553.61	98	4,968.17	—	—	98	4 968 17	361	23,429.40		15
	8-wheel coupled — 10-wheels	72	5,884.44	7	495.46	—	—	12	773.04	63	4,173.63	—	—	63	4,173.63	154	11,326.57		24
	8-wheel coupled — 12-wheels	20	1,606.30	—	—	—	—	—	—	—	—	—	—	—	—	20	1,606,30		—
	8-wheel coupled — Total	29	7,497.74	7	495.46	—	—	12	773.04	63	4,173.63	—	—	63	4,173.63	174	12,932,87		24
	Mallet — 4-wheel coupled 10 wheels	—	—	6	549.82	—	—	—	—	—	—	—	—	—	—	6	549.82		6
	Mallet — 6-wheel coupled 12 wheels	1	93.83	1	93.82	2	184.04	—	—	—	—	—	—	—	—	4	371.69		4
	Mallet — Total	1	93.83	7	643.64	2	184.04	—	—	—	—	—	—	—	—	10	921.51		10
	Total	322	21.321.96	241	14,965.01	271	16,426,32	128	7,822.13	177	10,136.20	—	—	177	10,136.20	1,139	70,071.62		78
6-wheel coupled electric engines		12	510.00	—	—	—	—	—	—	—	—	—	—	—	—	12	510.000		2
Grand total		651	35,934.01	640	32,580.79	548	26,957.55	297	14,391 04	242	12,920.26	3	45.60	245	10,965.86	2,381	122,829.25		76
Ratio per open mile		4.7	—	5.7	—	44	—	4.8	—	—	—	—	—	2.9	—	4.6	—		—

Table

PASSENGER CARRIAGES AT THE

Item \ Jurisdiction	Eastern Division								
	6-wheel bogie			4-wheel bogie			4-wheel		
	No.	Seats	Capacity	Mo.	Seats	Capacity	No.	Seats	Capacity
			c.ft.			*c.ft.*			*c.ft.*
Service car	—	—	—	—	—	—	—	—	—
Private car	—	—	—	1	20	—	1	15	—
Observation parlour	—	—	—	—	—	—	—	—	—
Sleeping car	—	—	—	—	—	—	—	—	—
1st class sleeping with smoking room	—	—	—	—	—	—	—	—	—
1st class sleeping and dining	—	—	—	—	—	—	—	—	—
2nd class with 1st class sleeping	8	266	—	—	—	—	—	—	—
2nd class with 1st class sleeping and caterer's van	—	—	—	6	222	—	—	—	—
Dining car	—	—	—	—	—	—	—	—	—
Dining with smoking room	—	—	—	—	—	—	—	—	—
Dining with private room	—	—	—	—	—	—	—	—	—
Dining for Japanese meal	—	—	—	—	—	—	—	—	—
3rd class dining	—	—	—	—	—	—	—	—	—
1st class	—	—	—	—	—	—	20	409	—
1st class with private room	—	—	—	—	—	—	—	—	—
1st class with hand brake	—	—	—	—	—	—	—	—	—
1st and 2nd class composite	—	—	—	22	1,188	—	40	925	—
1st and 2nd class composite with private room	—	—	—	—	—	—	—	—	—
1st and 2nd class composite with hand brake	—	—	—	—	—	—	—	—	—
1st and 2nd class sleeping	—	—	—	—	—	—	—	—	—
2nd class car	—	—	—	2	120	—	127	3,465	—
2nd class sleeping	—	—	—	—	—	—	—	—	—
2nd class with smoking room	—	—	—	—	—	—	—	—	—
2nd class dining	7	98	—	—	—	—	—	—	—
2nd class dining for foreign and Japanese meal	—	—	—	—	—	—	—	—	—
2nd class dining with smoking room	2	48	—	—	—	—	—	—	—
2nd class brake van	—	—	—	5	270	—	—	—	—
2nd class with hand brake	—	—	—	—	—	—	—	—	—
2nd and 3rd class compseite	—	—	—	6	384	—	23	867	—
2nd and 3rd class composite with hand brake	—	—	—	—	—	—	1	38	—
2nd and 3rd class brake van	3	144	—	11	475	—	1	37	—
2nd and 3rd class luggage and brake van	—	—	—	—	—	—	—	—	—
Electric tram with luggage room	—	—	—	—	—	—	—	—	—
Electric tram	—	—	—	—	—	—	—	—	—
3rd class car	—	—	—	29	2,320	—	381	18,577	—
3rd class brake van	—	—	—	102	7,323	—	291	13,386	—
3rd class with hand brade	—	—	—	—	—	—	31	1,550	—
3rd class postal van	—	—	—	—	—	—	—	—	—
3rd class postal van with hand brake	—	—	—	—	—	—	—	—	—
3rd class postal and brake van	—	—	—	8	264	7,050	3	38	1,384
3rd class luggage and brake van	—	—	—	3	84	3,654	3	70	1,251
Postal van	—	—	—	—	—	—	—	—	—
Posial and brake van	3	—	6,072	7	—	14,922	20	—	13,930
Postal, luggage and brake van	—	—	—	9	—	14,801	97	—	78,120
Luggage and brake van	—	—	—	16	—	30,201	116	—	95,879
Total	23	556	6,072	227	12,670	70,628	1,155	39,377	190,564
Ratio per 10 open miles	—	—	—	—	—	—	—	—	—
Seats classified — 1st class	—	144	—	—	430	—	—	869	—
Seats classified — 2nd class	—	328	—	—	1,726	—	—	4,322	—
Seats classified — 3rd class	—	84	—	—	10,514	—	—	34,186	—
Carriage room classified — Postal	—	—	6,072	—	—	28,272	—	—	53,785
Carriage room classified — Luggage	—	—	—	—	—	42,356	—	—	136,779

No. IX.

END OF THE YEAR

Central Division

Total			6-wheel bogie			4-wheel bogie			4-wheel			Total		
No.	Seats	Capacity	No.	Seats	Capacity	No.	Seats	Capacity	No.	Seats	Capacity	No.	Seats	Capacity
		c.ft.			c.ft.			c.ft.			c.ft.			c.ft.
—	—	—	—	—	—	—	—	—	3	30	—	3	30	—
2	35	—	3	24	—	1	20	—	—	—	—	4	44	—
—	—	—	5	155	—	—	—	—	—	—	—	5	155	—
—	—	—	6	—	—	—	—	—	—	—	—	6	—	—
—	—	—	6	231	—	—	—	—	—	—	—	6	231	—
—	—	—	1	24	—	—	—	—	—	—	—	1	24	—
8	266	—	—	—	—	2	84	—	—	—	—	2	84	—
6	222	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	3	—	—	—	—	—	3	—	—
—	—	—	8	—	—	3	—	—	—	—	—	11	—	—
—	—	—	3	—	—	—	—	—	—	—	—	3	—	—
—	—	—	1	—	—	—	—	—	—	—	—	1	—	—
—	—	—	—	—	—	3	72	—	—	—	—	3	72	—
20	409	—	9	340	—	1	36	—	18	362	—	28	738	—
—	—	—	3	126	—	—	—	—	—	—	—	3	126	—
—	—	—	—	—	—	—	—	—	2	36	—	2	36	—
62	2,113	—	8	444	—	25	2,576	—	43	983	—	96	4,003	—
—	—	—	3	160	—	—	—	—	—	—	—	3	160	—
—	—	—	—	—	—	—	—	—	2	44	—	2	44	—
—	—	—	—	—	—	4	168	—	—	—	—	4	168	—
129	3,585	—	22	1,284	—	19	800	—	140	3,719	—	181	5,801	—
—	—	—	5	230	—	—	—	—	—	—	—	5	230	—
—	—	—	8	368	—	—	—	—	—	—	—	8	368	—
7	98	—	1	23	—	—	—	—	—	—	—	1	23	—
—	—	—	2	46	—	—	—	—	—	—	—	2	46	—
2	48	—	—	—	—	—	—	—	—	—	—	—	—	—
5	270	—	9	561	—	8	420	—	—	—	—	17	981	—
—	—	—	—	—	—	—	—	—	2	48	—	2	48	—
29	1,251	—	4	344	—	17	1,196	—	8	298	—	29	1,838	—
1	38	—	—	—	—	2	140	—	2	88	—	4	228	—
15	656	—	—	—	—	3	186	—	1	30	—	4	216	—
—	—	—	—	—	—	4	140	2,688	—	—	—	4	140	2,688
—	—	—	—	—	—	3	138	2,625	6	98	2,000	9	236	4,625
—	—	—	—	—	—	33	3,076	—	30	1,530	—	63	4,606	—
410	20,897	—	10	880	—	129	10,090	—	332	5,906	—	471	26,876	—
393	20,709	—	5	420	—	57	4,978	—	231	11,337	—	293	16,735	—
31	1,550	—	—	—	—	6	480	—	78	3,764	—	84	4,244	—
—	—	—	—	—	—	—	—	—	3	84	995	3	84	995
—	—	—	—	—	—	—	—	—	6	164	2,133	6	164	2,133
11	302	8,434	—	—	—	—	—	—	8	178	2,719	8	178	2,719
6	154	4,905	4	224	3,193	42	1,480	41,786	20	413	9,020	66	2,117	53,999
—	—	—	—	—	—	—	—	—	27	—	20,683	27	—	20,683
30	—	34,924	3	—	5,580	10	—	19,971	—	—	—	13	—	25,551
106	—	92,921	6	—	15,479	5	—	8,678	28	—	26,754	39	—	50,911
132	—	126,080	3	—	6,735	14	—	22,617	130	—	107,451	147	—	136,803
1,405	52,603	267,264	138	5,884	30,987	414	26,080	98,365	1,120	39,110	171,755	1,672	71,074	301,107
10.1	—	—	—	—	—	—	—	—	—	—	—	14.8	—	—
—	1,443	—	—	1,170	—	—	1,059	—	—	840	—	—	3,069	—
—	6,376	—	—	3,006	—	—	3,672	—	—	4,492	—	—	11,170	—
—	44,784	—	—	1,708	—	—	21,349	—	—	33,778	—	—	56,835	—
—	—	88,129	—	—	12,915	—	—	23,961	—	—	42,944	—	—	79,820
—	—	179,135	—	—	18,072	—	—	74,404	—	—	128,811	—	—	21,287

PASSENGER GARRIAGES AT THE

Item	Jurisdiction	Western Dieision								
		6-wheel bogie			4-wheel bogie			5-wheel		
		No.	Seats	Capacity	No.	Seats	Capacity	No.	Seats	Capacity
				c. ft.			*c. ft*			*c. ft*
Inspection car		—	—	—	—	—	—	2	—	—
Service car		—	—	—	—	—	—	2	—	—
Private car		—	—	—	1	20	—	2	26	—
Sleeping car		1	—	—	2	—	—	—	—	—
1st class sleeping with smoking room		6	198	—	—	—	—	—	—	—
1st class sleeping with private room		5	170	—	—	—	—	—	—	—
1st class sleeping and dining		13	312	—	—	—	—	—	—	—
Dining car		—	—	—	1	—	—	—	—	—
Dining for Japanese meal		2	—	—	1	—	—	—	—	—
1st class dining		3	78	—	—	—	—	—	—	—
1st class car		1	42	—	—	—	—	43	811	—
1st class with hand brake		—	—	—	—	—	—	—	—	—
1st and 2nd class composite		11	611	—	50	2,577	—	94	2,398	—
1st and 2nd class composite with private room		1	50	—	—	—	—	—	—	—
1st and 2nd class composite with hand brake		—	—	—	—	—	—	—	—	—
1st and 2nd class brake van		—	—	—	—	—	—	—	—	—
1st and 3rd class composite		—	—	—	3	225	—	—	—	—
2nd class car		17	1,072	—	12	694	—	149	3,810	—
2nd class sleeping		14	722	—	—	—	—	—	—	—
2nd class dining		4	44	—	—	—	—	—	—	—
2nd class dining with smoking room		7	138	—	—	—	—	—	—	—
2nd class brake van		3	181	—	4	204	—	—	—	—
2nd class with hand brake		—	—	—	—	—	—	—	—	—
2nd and 3rd class composite		7	462	—	30	1,993	—	19	771	—
2nd and 3rd class with hand brake		—	—	—	—	—	—	2	84	—
2nd and 3rd class brake van		5	340	—	—	—	—	—	—	—
2nd and 3rd class luggage and brake van		—	—	—	—	—	—	1	22	362
Steam motor car		—	—	—	10	672	—	—	—	—
3rd class car		49	3,991	—	147	11,823	—	682	33,774	—
3rd class brake van		18	1,457	—	46	4,024	—	74	3,450	—
3rd class with hand brake		—	—	—	9	623	—	33	1,599	—
3rd class postal van		—	—	—	—	—	—	14	353	4,767
3rd class postal van with hand brake		—	—	—	—	—	—	10	270	3,713
3rd class postal and brake van		1	53	881	11	742	11,280	9	140	3,627
3rd class with postal, luggage and brake van		—	—	—	13	453	8,952	5	72	4,433
3rd class luggage and brake van		11	522	10,048	42	1,817	43,081	115	2,455	62,884
Postal van		—	—	—	—	—	—	3	—	2,054
Postal and brake van		3	—	7,040	6	—	12,868	3	—	2,613
Postal van with hand brake		3	—	6,998	3	—	7,047	—	—	—
Postal, luggage and brake van		—	—	—	9	—	19,161	48	—	39,965
Luggage and brake van		14	—	34,240	10	—	19,861	122	—	89,617
Storage battery car		—	—	—	—	—	—	37	—	—
Total		199	10,443	59,207	408	25,867	132,250	1,472	50,035	214,035
Ratio per 10 open miles		—	—	—	—	—	—	—	—	—
Seats classified	1st class	—	1,067	—	—	996	—	—	1,807	—
	2nd class	—	2,963	—	—	3,297	—	—	5,594	—
	3rd class	—	6,413	—	—	21,574	—	—	42,634	—
Carriage room classified	Postal	—	—	14,919	—	—	48,477	—	—	38,203
	Luggage	—	—	44,288	—	—	83,773	—	—	175,832

END OF THE YEAC.—*Continued.*

Total			Kyushu Division											
			6-wheel bogie			4-wheel bogie			4-wheel			Total		
No.	Seats	Capacity	No.	Seats	Capacity	No.	Seats	Capacity	No.	Seats	Capacity	No.	Seats	Capacity
		c. ft			*c. ft*			*c. ft*			*c. ft*			*c. ft*
2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3	46	—	1	23	—	—	—	—	—	—	—	1	23	—
3	—	—	1	—	—	—	—	—	—	—	—	1	—	—
6	198	—	—	—	—	—	—	—	—	—	—	—	—	—
5	170	—	—	—	—	—	—	—	—	—	—	—	—	—
13	312	—	6	144	—	—	—	—	—	—	—	6	144	—
1	—	—	1	—	—	—	—	—	—	—	—	1	—	—
3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3	78	—	5	120	—	6	120	—	—	—	—	11	240	—
44	853	—	—	—	—	—	—	—	9	182	—	9	182	—
—	—	—	1	38	—	—	—	—	—	—	—	1	38	—
158	5,586	—	—	—	—	16	821	—	36	882	—	52	1,703	—
1	50	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	1	44	—	—	—	—	1	44	—
—	—	—	—	—	—	2	88	—	—	—	—	2	88	—
3	225	—	—	—	—	—	—	—	—	—	—	—	—	—
178	5,576	—	—	—	—	5	260	—	20	530	—	25	790	—
14	722	—	—	—	—	—	—	—	—	—	—	—	—	—
4	44	—	—	—	—	—	—	—	—	—	—	—	—	—
7	138	—	—	—	—	—	—	—	—	—	—	—	—	—
7	385	—	—	—	—	6	300	—	—	—	—	6	300	—
—	—	—	1	50	—	15	684	—	—	—	—	16	734	—
56	3,226	—	—	—	—	7	444	—	11	389	—	18	833	—
2	84	—	—	—	—	—	—	—	4	146	—	4	146	—
5	340	—	—	—	—	6	364	—	—	—	—	6	364	—
1	22	362	—	—	—	—	—	—	—	—	—	—	—	—
10	672	—	—	—	—	2	132	—	—	—	—	2	132	—
878	49,518	—	—	—	—	64	5,226	—	148	6,930	—	212	12,156	—
138	8,931	—	—	—	—	51	3,872	—	92	4,076	—	143	7,948	—
40	2,222	—	—	—	—	—	—	—	20	846	—	20	846	—
14	353	4,767	—	—	—	—	—	—	—	—	—	—	—	—
10	270	3,713	—	—	—	—	—	—	—	—	—	—	—	—
21	935	15,788	—	—	—	—	—	—	—	—	—	—	—	—
18	525	23,385	—	—	—	—	—	—	—	—	—	—	—	—
168	4,794	116,013	—	—	—	18	676	18,260	4	40	2,836	22	716	21,096
3	—	2,054	—	—	—	2	—	4,236	5	—	4,690	7	—	8,926
12	—	22,521	—	—	—	—	—	—	2	—	1,914	2	—	1,914
6	—	14,045	—	—	—	—	—	—	2	—	1,914	2	—	1,914
57	—	59,126	—	—	—	21	—	40,581	28	—	23,948	49	—	64,529
146	—	143,718	—	—	—	4	—	8,332	24	—	21,119	28	—	29,451
37	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2,079	86,345	405,492	16	375	—	226	13,031	71,409	403	14,021	56,421	647	27,427	127,830
16.8	—	—	—	—	—	—	—	—	—	—	—	19.6	—	—
—	3,870	—	—	325	—	—	503	—	—	546	—	—	1,374	—
—	11,854	—	—	50	—	—	2,162	—	—	1,272	—	—	3,484	—
—	70,621	—	—	—	—	—	10,366	—	—	12,203	—	—	22,569	—
—	—	101,599	—	—	—	—	—	24,250	—	—	19,372	—	—	43,622
—	—	303,893	—	—	—	—	—	47,159	—	—	37,049	—	—	84,208

PASSENGER CARRIAGES AT THE

Hokkaido Division

Item (Jurisdiction)	6-wheel bogie			4-wheel bogie			4-wheel			
	No.	Seats	Capacity	No.	Seats	Capacity	No.	Seats	Capacity	No.
			c. ft.			*c. ft.*			*c. ft.*	
Inspection car	—	—	—	—	—	—	—	—	—	—
Service car	—	—	—	—	—	—	—	—	—	—
Private car	—	—	—	2	43	—	—	—	—	2
Observation parlour	—	—	—	—	—	—	—	—	—	—
Sleeping car	—	—	—	—	—	—	—	—	—	—
1st class sleeping with smoking room	—	—	—	—	—	—	—	—	—	—
1st class sleeping with private room	—	—	—	—	—	—	—	—	—	—
1st class sleeping and dining	—	—	—	—	—	—	—	—	—	—
2nd class with 1st class sleeping	5	260	—	—	—	—	—	—	—	5
2nd class with 1st class sleeping and caterer's van	—	—	—	—	—	—	—	—	—	—
Dining car	—	—	—	—	—	—	—	—	—	—
Dining with smoking room	—	—	—	—	—	—	—	—	—	—
Dining with private room	—	—	—	—	—	—	—	—	—	—
Dining for Japanese meal	—	—	—	—	—	—	—	—	—	—
1st class dining	—	—	—	—	—	—	—	—	—	—
3rd class dining	—	—	—	—	—	—	—	—	—	—
1st class car	—	—	—	—	—	—	—	—	—	—
1st class with private room	—	—	—	—	—	—	—	—	—	—
1st class with hand brake	—	—	—	2	58	—	—	—	—	2
1st and 2nd class composite	—	—	—	—	—	—	—	—	—	—
1st and 2nd class composite with private room	—	—	—	—	—	—	—	—	—	—
1st and 2nd class composite with hand brake	—	—	—	13	525	—	1	15	—	14
1st and 2nd class brake van	—	—	—	—	—	—	—	—	—	—
1st and 2nd class sleeping	—	—	—	—	—	—	—	—	—	—
1st and 3rd class composite	—	—	—	—	—	—	—	—	—	—
2nd class car	—	—	—	6	360	—	5	80	—	11
2nd class sleeping	—	—	—	—	—	—	—	—	—	—
2nd class sleeping with smoking room	—	—	—	—	—	—	—	—	—	—
2nd class dining	—	—	—	—	—	—	—	—	—	—
2nd class dining for foreign and Japanese meal	—	—	—	—	—	—	—	—	—	—
2nd class dining with smoking room	—	—	—	—	—	—	—	—	—	—
2nd class brake van	—	—	—	—	—	—	—	—	—	—
2nd class with hand brake	—	—	—	13	504	—	5	90	—	18
2nd and 3rd class composite	—	—	—	—	—	—	—	—	—	—
2nd and 3rd class composite with hand brake	—	—	—	33	1,222	—	6	138	—	39
2nd and 3rd class brake van	—	—	—	—	—	—	—	—	—	—
2nd and 3rd class luggage and brake van	—	—	—	—	—	—	—	—	—	—
Electric tram with luggage room	—	—	—	—	—	—	—	—	—	—
Electric tram	—	—	—	—	—	—	—	—	—	—
Steam motor car	—	—	—	—	—	—	—	—	—	—
3rd class car	—	—	—	18	1,760	—	—	—	—	18
3rd class brake van	—	—	—	3	150	—	—	—	—	3
3rd class with hand brake	—	—	—	76	5,587	—	50	1,867	—	126
3rd class postal van	—	—	—	—	—	—	—	—	—	—
3rd class postal van with hand brake	—	—	—	7	196	2,968	—	—	—	7
3rd class postal and brake van	—	—	—	—	—	—	—	—	—	—
3rd class with postal, luggage and brake van	—	—	—	—	—	—	—	—	—	—
3rd class luggage and brake van	—	—	—	9	318	4,091	—	—	—	9
Postal van	—	—	—	—	—	—	3	—	3,109	3
Postal and brake van	—	—	—	—	—	—	—	—	—	—
Postal van with hand brake	—	—	—	—	—	—	11	—	7,968	11
Postal, luggage and brake van	—	—	—	12	—	19,879	7	—	5,369	19
Luggage and brake van	—	—	—	9	—	11,592	45	—	33.866	54
Storage battery car	—	—	—	—	—	—	—	—	—	—
Dining for 3rd class passt	—	—	—	—	—	—	—	—	—	—
2nd class with caterer's van	—	—	—	—	—	—	—	—	—	—
Total	5	260	—	203	10,723	38,530	133	190	49,312	341
Ratio per 10 open miles	—	—	—	—	—	—	—	—	—	4.0
Seats classified — 1st class	—	90	—	—	312	—	—	4	—	—
Seats classified — 2nd class	—	170	—	—	1,740	—	—	231	—	—
Seats classified — 3rd class	—	—	—	—	8,671	—	—	1,955	—	—
Carriage room classified — Postal	—	—	—	—	—	14,863	—	—	12,177	—
Carriage room classified — Luggage	—	—	—	—	—	23,667	—	—	37,135	—

N. B.—The above table includes hired cars, but not Imperial carriages nor leased cars.

Imperial carriages are in charge of the Central Division.

32 hired cars are included in the returns of the Eastern, the Central, and in the Western Divisions.

END OF THE YEAR.—*Continued.*

Grand total

Total		4-wheel bogie			6-wheel bogie			4-wheel			Total			Inc. or dec. (△) against preceding year
Seats	Capacity	No.	Seats	Capacity	No.	Seats	Capacity	No.	Seats	Capacity	No.	Seats	Capacity	
	c. ft.			*c. ft.*			*c. ft.*			*c. ft.*			*c. ft.*	
—	—	—	—	—	—	—	—	2	—	—	2	—	—	—
—	—	—	—	—	—	—	—	5	30	—	5	30	—	—
43	—	4	47	—	5	103	—	3	41	—	12	191	—	—
—	—	5	155	—	—	—	—	—	—	—	5	155	—	5
—	—	8	—	—	2	—	—	—	—	—	10	—	—	△ 2
—	—	12	429	—	—	—	—	—	—	—	12	429	—	8
—	—	5	170	—	—	—	—	—	—	—	5	170	—	—
—	—	20	480	—	—	—	—	—	—	—	20	480	—	—
260	—	13	526	—	2	84	—	—	—	—	15	610	—	3
—	—	—	—	—	6	222	—	—	—	—	6	222	—	—
—	—	1	—	—	4	—	—	—	—	—	5	—	—	—
—	—	8	—	—	3	—	—	—	—	—	11	—	—	5
—	—	3	—	—	—	—	—	—	—	—	3	—	—	—
—	—	3	—	—	1	—	—	—	—	—	4	—	—	4
—	—	8	198	—	6	120	—	—	—	—	14	318	—	—
—	—	—	—	—	3	72	—	—	—	—	3	72	—	—
—	—	10	382	—	1	36	—	90	1,764	—	101	2,182	—	1
—	—	3	126	—	—	—	—	—	—	—	3	126	—	—
58	—	1	38	—	2	58	—	2	36	—	5	132	—	1
—	—	19	1,055	—	133	7,162	—	216	5,188	—	368	13,405	—	8
—	—	4	210	—	—	—	—	—	—	—	4	210	—	—
540	—	—	—	—	14	569	—	3	59	—	17	628	—	△ 3
—	—	—	—	—	2	88	—	—	—	—	2	88	—	2
—	—	—	—	—	4	168	—	—	—	—	4	168	—	4
—	—	—	—	—	3	225	—	—	—	—	3	225	—	—
440	—	39	2,356	—	44	2,234	—	441	11,602	—	524	16,192	—	25
—	—	19	952	—	—	—	—	—	—	—	19	952	—	△ 2
—	—	8	368	—	—	—	—	—	—	—	8	368	—	△ 8
—	—	12	165	—	—	—	—	—	—	—	12	165	—	△ 2
—	—	2	46	—	—	—	—	—	—	—	2	46	—	2
—	—	9	186	—	—	—	—	—	—	—	9	186	—	4
—	—	12	742	—	23	1,194	—	—	—	—	35	1,936	—	2
594	—	1	50	—	28	1,188	—	7	138	—	36	1,376	—	1
—	—	11	806	—	60	4,017	—	61	2,325	—	132	7,148	—	18
1,360	—	—	—	—	35	1,362	—	15	494	—	50	1,856	—	△ 2
—	—	8	484	—	20	1,025	—	2	67	—	30	1,576	—	4
—	—	—	—	—	4	140	2,688	1	22	362	5	162	3,050	—
—	—	—	—	—	3	138	2,625	6	98	2,000	9	236	4,625	6
—	—	—	—	—	33	3,076	—	30	1,530	—	63	4,606	—	—
—	—	—	—	—	12	804	—	—	—	—	12	804	—	8
1,760	—	59	4,871	—	387	31,219	—	1,543	75,187	—	1,989	111,277	—	38
150	—	23	1,877	—	259	20,347	—	688	32,249	—	970	54,473	—	71
7,454	—	—	—	—	89	6,690	—	212	9,626	—	301	16,316	—	3
—	—	—	—	—	—	—	—	17	437	5,762	17	437	5,762	△ 5
196	2,968	—	—	—	7	196	2,968	16	434	5,846	23	630	8,814	△ 3
—	—	1	53	881	19	1,006	18,330	20	356	7,730	40	1,415	26,941	—
—	—	—	—	—	13	453	18,952	5	72	4,433	18	525	23,385	—
318	4,091	15	746	13,241	114	4,375	110,872	142	2,978	75,991	271	8,099	200,104	21
—	2,109	—	—	—	2	—	4,236	38	—	29,536	40	—	33,772	△ 14
—	—	9	—	18,692	23	—	47,761	25	—	18,457	57	—	84,910	9
—	7,968	3	—	6,998	3	—	7,047	13	—	9,882	19	—	23,927	△ 5
—	25,248	6	—	15,479	56	—	103,100	208	—	174,156	270	—	292,735	22
—	45,458	17	—	40,975	53	—	92,603	437	—	347,932	507	—	481,510	19
—	—	—	—	—	—	—	—	37	—	—	37	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	△ 4
—	—	—	—	—	—	—	—	—	—	—	—	—	—	△ 3
13,173	87,842	381	17,518	96,266	1,478	88,371	411,182	4,285	144,733	682,087	6,144	250,622	1,189,535	257
—	—	—	—	—	—	—	—	—	—	—	11.8	—	—	—
406	—	—	2,796	—	—	3,300	—	—	4,066	—	—	10,162	—	—
12,141	—	—	6,517	—	—	12,597	—	—	15,911	—	—	35,025	—	—
10,626	—	—	8,205	—	—	72,474	—	—	124,756	—	—	205,435	—	—
—	27,040	—	—	33,906	—	—	139,823	—	—	166,481	—	—	340,210	—
—	60,802	—	—	62,360	—	—	271,359	—	—	515,606	—	—	849,325	—

16 cars in charge of the Hokkaido Division are leased to the Government of Karafuto.

3 of 143 2nd cl. 4-wheels in charge of the Central Division are cars subsidiary to electric trams.

Table

GOODS WAGONS AT THE

Jurisdiction	Capacity	Kind	Covered														Total
			4-wheeled bogie		6-wheeled	4-wheeled											
			Wagon	Brake van	do. with toothed wheels	Wagon	Brake van	Iron truck	Cattle truck	Fish van	Oil car	Refrigerator car	Limestone truck	Furniture van	Horse van	
Eastern, Central and Western Divisions. (including vehicles possessed in common)	0 ton		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	3 ton		—	—	—	—	2	—	—	—	—	—	—	—	1	3	
	4 ton		—	—	—	3	38	1	—	—	—	—	—	—	3	45	
	5 ton		—	—	—	188	173	17	1	6	3	—	—	—	1	389	
	6 ton		—	—	2	979	752	52	20	27	5	10	—	—	—	1,847	
	7 ton		—	—	13	3,153	1,099	64	185	31	30	—	—	4	5	4,584	
	8 ton		—	—	—	6,099	75	100	82	45	6	209	—	—	—	6,616	
	9 ton		—	—	—	1,815	925	65	—	1	—	1	—	—	—	2,807	
	10 ton		—	—	—	284	19	368	—	—	—	—	—	—	—	671	
	11 ton		—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12 ton		—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	15 ton		—	7	—	—	—	—	—	—	—	—	—	—	—	7	
	17 ton		—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	18 ton		—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	20 ton		—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	22 ton		—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	24 ton		—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	25 ton		5	—	—	—	—	—	—	—	—	—	—	—	—	5	
	Total	*No.*	5	7	15	12,521	3,083	667	288	110	44	220	—	4	10	16,974	
		ton	125	105	103	96,864	22,343	5,914	2,076	778	303	1,741	—	28	55	130,435	
Kyushu Division	5 ton		—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	6 ton		—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	7 ton		—	—	—	—	—	2	—	2	—	—	16	—	—	20	
	8 ton		—	—	—	—	—	2	20	2	—	30	—	—	—	54	
	9 ton		—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	10 ton		—	—	—	—	—	30	—	—	—	—	—	—	—	30	
	18 ton		—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Total	*No.*	—	—	—	—	—	34	20	4	—	30	16	—	—	104	
		ton	—	—	—	—	—	330	160	30	—	240	112	—	—	872	
Hokkaido Division	0 ton		—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	4 ton		—	21	—	—	—	—	—	—	—	—	—	—	—	21	
	5 ton		—	39	—	1	26	—	—	—	—	—	—	—	—	66	
	6 ton		—	4	—	1	45	—	—	—	—	—	—	—	—	50	
	7 ton		147	—	—	412	49	—	—	—	—	—	—	—	—	608	
	8 ton		—	—	—	329	1	—	—	—	—	—	—	—	—	330	
	9 ton		—	—	—	120	100	—	—	—	—	—	—	—	—	220	
	11 ton		—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	15 ton		—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	18 ton		—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	24 ton		—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Total	*No.*	147	64	—	863	221	—	—	—	—	—	—	—	—	1,295	
		ton	1,029	303	—	6,607	1,651	—	—	—	—	—	—	—	—	9,590	
Grand total		*No.*	152	71	15	13,384	3,304	701	308	114	44	250	16	4	10	18,373	
		ton	1,154	408	103	103,471	23,994	6,244	2,236	808	303	1,981	112	28	55	140,897	
Inc. or dec. (△) against preceding year		*No.*	25	△10	—	705	713	272	100	△ 1	—	70	—	—	—	1,824	

N. B.—The above table includes hired wagons, but not the leased nor the privately-owned.

104 wagons are hired from the Yokohama Railway and included in the returns of the Eastern, the Central and the

50 wagons in charge of the Hokkaido Division are leased to the Government of Karafuto (Saghalien).

There are besides 552 privately-owned wagons.

No. X.

END OF THE YEAR.

Open														Special service vehicle								Grand total	Ratio per 10 open miles
4-wheeled bogie			4-wheeled										Total							Total		
Wagon	Timber truck	Coal truck	Wagon	Brake van	Wagon serving as timber truck	Timber truck	Coal truck	Ballast truck	Ballast brake van	Cokes truck	Girder truck	Stone truck		Construction service car	Accident car	Gas holder	Water tank	Snow-plow	Tender truck			
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11	—	—	—	11	11	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	2	47	—
—	—	—	147	—	4	14	—	237	—	—	—	—	402	31	—	—	—	—	—	31	822	—
—	—	—	611	20	1	31	—	272	10	29	—	—	974	32	6	—	—	—	—	38	2,859	—
—	—	—	2,135	—	20	150	—	602	—	—	—	—	2,907	305	1	—	—	—	—	306	7,797	—
—	—	—	1,191	77	7	3	—	1	—	—	—	—	1,279	42	1	—	—	—	—	43	7,938	—
—	—	—	5,340	102	6	300	150	—	—	—	—	—	5,898	—	—	—	—	—	—	—	8,705	—
—	4	—	852	—	2	8	—	—	—	—	—	—	866	—	—	—	—	—	—	—	1,537	—
—	—	—	14	—	—	—	—	—	—	—	—	—	14	—	—	—	—	—	—	—	14	—
—	—	—	1	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	1	—
68	—	—	—	—	—	—	—	—	—	—	6	—	74	—	—	—	—	—	—	—	81	—
—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	1	—
378	—	—	2	—	—	—	—	—	—	—	—	—	380	—	—	—	—	—	—	—	380	—
—	10	—	—	—	—	—	—	—	—	—	—	—	10	—	—	—	—	—	—	—	10	—
—	2	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—	2	—
—	—	1	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	1	—
5	—	—	—	—	—	—	—	—	—	—	—	—	5	—	—	—	—	—	—	—	10	—
451	16	1	10,293	199	40	506	150	1,112	10	29	6	1	12,814	412	8	11	—	—	—	431	30,219	80.6
7,949	284	24	85,656	1,654	296	4,110	1,350	7,039	60	174	90	17	108,703	2,826	51	—	—	—	—	2,877	242,015	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	1	1	—
—	—	—	—	—	—	—	717	—	—	—	—	—	717	—	6	—	12	—	—	18	735	—
—	—	—	—	—	—	24	499	201	—	—	—	—	724	50	1	—	—	—	—	51	795	—
—	—	—	—	—	—	10	—	—	—	—	—	—	10	40	—	—	—	—	—	40	104	—
—	—	—	175	—	—	8	3,941	24	—	—	—	—	4,148	—	—	—	—	—	—	—	4,148	—
—	10	—	—	—	—	—	—	—	—	—	—	—	10	—	—	—	—	—	—	—	40	—
20	—	—	—	—	—	—	—	—	—	—	—	—	20	—	—	—	—	—	—	—	20	—
20	10	—	175	—	—	42	5,157	225	—	—	—	—	5,629	90	8	—	12	—	—	110	5,843	95.3
360	100	—	1,575	—	—	320	43,264	1,623	—	—	—	—	47,242	670	48	—	72	—	—	790	48,904	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8	3	11	11	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	21	-
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	66	—
—	—	—	3	—	—	—	—	2	—	—	—	—	5	3	—	—	—	—	—	3	58	—
1,204	9	—	341	—	—	65	—	78	—	—	—	—	1,697	195	—	—	—	—	—	195	2,500	—
—	—	—	246	—	—	—	—	30	—	—	—	—	276	—	1	—	5	10	—	16	622	—
—	—	—	157	—	—	—	—	—	—	—	—	—	157	—	—	—	—	—	—	—	377	—
—	—	—	1	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	1	—
35	175	—	—	—	—	—	—	—	—	—	—	—	210	3	—	—	—	—	—	3	213	—
457	—	—	—	—	—	—	—	—	—	—	—	—	457	—	—	—	—	—	—	—	457	—
—	—	139	—	—	—	—	—	—	—	—	—	—	139	—	—	—	—	—	—	—	139	—
1,696	184	139	748	—	—	65	—	110	—	—	—	—	2,942	201	1	—	5	18	3	228	4,465	52.3
17,179	2,688	3,336	5,797	—	—	455	—	798	—	—	—	—	30,253	1,428	8	—	40	80	—	1,556	41,399	—
2,167	210	140	11,216	199	40	613	5 307	1,447	10	29	6	1	21,385	703	17	11	77	18	3	769	40,527	77.7
25,488	3,072	3,360	93,028	1,654	296	4,885	41,614	9,460	60	174	90	17	186,198	4,924	107	—	112	80	—	5,223	382,318	—
△ 216	6	81	387	99	25	206	261	△ 113		△ 1	—	—	735	11*	2	—	—	7	—	10	2,575	—

Western Divisions.

Table No. XI.

STEAMSHIPS AT THE END OF THE YEAR.

Name	Route	Port of registry	Gross tonnage	Net tonnage	Dimensions			Mean draught	Boiler pressure	Passengers carried				Crew			
					Length	Breadth	Depth			1st class	2nd class	3rd class	Total	Navigation	Engineering	Purser and staff	Total
			ton	*ton*	*shaku*	*shaku*	*shaku*	*ft.*	*lb.*								
Komamaau	Shimonoseki-Fusan	Tokyo	3,107.66	1,678.14	324.35	42.12	20.00	21.2⅛	200	43	128	440	611	32	35	41	108
Shiragimaru	,, ,, ...	,,	3,107.66	1,678.14	324.35	42.12	20.00	21.2⅛	200	43	128	440	611	32	35	41	108
Ikimaru	,, ,, ...	,,	1,691.78	913.56	270.27	34.78	21.16	12.6	180	18	64	235	317	21	26	28	75
Tsushimamaru	,, ,, ...	,,	1,691.67	913.50	270.25	34.78	21.16	12.6	180	18	64	239	321	21	26	28	75
Hirafumaru	Aomori-Hakodate	,,	1,521.19	821.44	292.00	34.10	20.70	11.6	165	22	56	358	436	23	21	25	69
Tamuramaru	,, ,, ...	,,	1,521.19	821.44	292.00	34.10	20.70	11.6	165	22	56	358	436	23	21	25	69
Daini-Hankakumaru	,, ,, ...	,,	864.94	536.26	187.62	27.25	17.70	12.6	190	8	41	250	299	15	13	18	46
Tamamomaru	Uno-Takamatsu...	,,	223.50	120.69	120.00	19.50	9.70	7.6	160	17	32	261	310	9	9	4	22
Kojimamaru	,, ,, ...	,,	223.50	120.69	120.00	19.50	9.70	7.6	160	17	32	271	320	9	9	4	22
Osedomaru	Shimonoseki-Moji	,,	191.35	103.33	105.65	24.26	8.18	5.0	160	29	48	258	335	8	8	1	17
Shimonosekimaru	,, ,, ...	,,	186.07	100.48	105.65	24.26	8.18	5.0	160	29	68	286	383	8	8	1	17
Hashidatemaru	Uno-Takamatsu	,,	55.47	29.95	79.20	13.15	6.95	5.6	120	—	16	36	52	5	5	1	11
Daini-Hashidatemaru	Maizuru-Miyazu-Obama	,,	170.41	105.66	115.30	15.90	11.83	11.6	160	—	24	70	94	9	9	3	21
Daisan-Hashidatemaru	Maizuru-Miyazu...	,,	168.61	91.05	103.40	17.60	9.22	8.0	160	—	29	100	129	8	8	3	19
Itsukushimamaru	Miyajima-Itsukushima	,,	70.44	36.30	78.00	15.80	6.80	5.0	120	—	—	375	375	5	5	1	11
Miyajimamaru...	(for carrying passengers and towing) at Shimonoseki	,,	35.83	19.11	59.40	11.60	6.38	4.3	100	—	—	94	94	3	4	—	7
Hosoemaru	do.	,,	32.86	16.12	57.00	11.50	6.80	6.0	120	—	—	34	34	4	3	—	7
Tsugarumaru	do. at Aomori	,,	44.60	23.75	58.20	12.40	6.70	4.6	120	—	—	31	31	4	4	—	8
Ushiwakamaru	do. at Hakodate	,,	42.70	19.97	58.70	12.50	6.45	5.3	120	—	10	77	87	3	3	—	6
Aomorimaru	do. at Aomori	,,	21.71	11.65	43.40	9.75	5.46	4.0	120	—	—	52	52	3	3	—	6
Tamashimamaru	do. at Shimonoseki...	,,	34.77	17.77	59.00	11.40	6.60	5.6	120	—	—	70	70	3	4	—	7
Asahimaru	do. at Miyazu Bay	,,	24.08	13.01	71.10	12.20	2.40	1.6	120	—	—	143	143	3	3	—	6
Odomaru	do. at Shimonoseki...	,,	24.82	10.44	57.90	10.60	5.35	4.1	110	—	—	12	12	3	3	—	6
Bentenmaru	do. at Hakodate	,,	10.00	9.40	48.00	8.75	5.22	4.2	100	—	—	33	33	3	3	—	6
Funashimamaru	do. at Shimonoseki...	,,	41.56	20.88	62.10	12.05	6.70	6.6	140	—	—	45	45	4	4	—	8
Total	—	25	15,117.37	8,232.73	—	—	—	—	—	266	796	4,568	5,680	261	272	224	757
Inc. or dec. (△) against preceding year	—	2	5,486.01	2,897.91	—	—	—	—	—	78	137	42	257	54	62	64	180

STEAMSHIPS AT THE END OF THE YEAR.—*Continued.*

Name	Date of launching	Maker	Class	Material of hull	Deck		Engine		Boiler		Propeller		Form of stern	Form of stern	No. of masts	No. of boats
					No.	Kind	Kind	No.	Kind	No.	Kind	No.				
Komamaru	Oct. 1912	Kawasaki Dockyard.	Ocean going	Steel	3	Awning deck.	T. Compound	2	Single-ended	4	Se.	2	Straight	Elliptical	2	10
Shiragimaru...	Nov. ,,	,, ,,	,, ,,	,,	3	,, ,,	,, ,,	2	,,	4	,,	2	,,	,,	2	10
Ikimaru	Jun. 1905	,, ,,	,, ,,	,,	2	,, ,,	,, ,,	2	,,	2	,,	2	,,	,,	2	6
Tsushimamaru	,, ,,	,, ,,	,, ,,	,,	2	,, ,,	,, ,,	2	,,	2	,,	2	,,	,,	2	6
Hirafumaru	Jul. 1907	Denny & Co.	Smooth water	,,	2	Shelter ,,	Turbine	3	,,	2	,,	3	,,	,,	2	6
Tamuramaru	Aug. ,,	,, ,, ,,	,, ,,	,,	2	,, ,,	,,	3	,,	2	,,	3	,,	,,	2	6
Daini-Hankakumaru	Apr. 1908	Hanta Ryutari.	Ocean going	,,	2	Spar ,,	T. Compound	1	,,	1	,,	1	,,	,,	2	4
Tamonmaru...	Jan. 1903	Mitsubishi Dockyard	Coasting	,,	1	Heavy ,,	,, ,,	2	,,	1	,,	2	,,	Circular	—	—
Kojimamaru	,, ,,	,, ,,	,,	,,	1	,, ,,	,, ,,	2	,,	1	,,	2	,,	,,	—	—
Osedomaru	Feb. 1899	,, ,,	,,	,,	1	,, ,,	,, ,,	2	,,	1	,,	2	,,	,,	—	—
Shimonosekimaru	,, ,,	,, ,,	,,	,,	1	,, ,,	,, ,,	2	,,	1	,,	2	,,	,,	—	—
Hashidatemaru	Oct. 1904	Hanta Ryutaro.	,,	Wood	1	,, ,,	Comp. Cond.	2	,,	1	,,	2	,,	Elliptical	—	—
Daini-Hashidatemaru... ...	May 1906	Ono Seikicht.	Smooth water	,,	2	Spar ,,	T. Compound	1	,,	1	,,	1	,,	Circular	1	2
Daisan-Hashidatemaru ...	Oct. 1905	Uraga Dockyard.	,, ,,	Steel	1	Heavy deck vessel	,, ,,	1	,,	1	,,	1	,,	,,	—	2
Itsukushimamaru	,, 1905	Hanta Ryutaro.	Coasting	Wood	1	Heavy deck	Comp. Cond.	2	,,	1	,,	2	,,	,,	—	—
Miyajimamaru	Mar. 1902	Ono Seikichi.	Smooth water	,,	1	,, ,,	,, ,,	1	,,	1	,,	1	,,	,,	—	—
Hosoemaru	Jun. 1905	Hanta Ryutaro.	,, ,,	,,	1	,, ,,	,, ,,	1	,,	1	,,	1	,,	Elliptical	—	—
Tsugarumaru	Apr. 1908	Yokohama Dockyard.	,, ,,	,,	1	,, ,,	,, ,,	1	,,	1	,,	1	,,	,,	—	—
Ushiwakamaru	Jul. 1910	Ishikawajima Dockyard.	,, ,,	,,	1	,, ,,	,, ,,	1	,,	1	,,	1	,,	,,	—	—
Aomorimaru	May 1908	Yokohama Dockyard.	Coasting	,,	1	,, ,,	,, ,,	1	,,	1	,,	1	,,	,,	—	—
Tamashimaru	Oct. 1902	Hanta Ryutaro.	Smooth water	,,	1	,, ,,	,, ,,	1	,,	1	,,	1	,	Circular	—	—
Asahimaru	Jan. 1903	,, ,,	Coasting	Steel	1	,, ,,	T. condensing	1	Vertical	1	,,	4	Raked	Elliptical	—	—
Odomaru	Sep. 1901	Kawasaki Dockyard.	,,	Wood	1	,, ,,	Comp. Cond	1	Single-ended	1	,,	1	Straight	Circular	—	—
Bentenmaru	,, 1897	Yokohama Dockyard.	,,	,,	1	,, ,,	,, ,,	1	,,	1	,,	1	,,	,,	—	—
Funashimamaru	Nov. 1912	Ishikawajima Dockyard.	,,	,,	1	,, ,,	,, ,,	1	,,	1	,,	1	,,	,,	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Inc. or dec. (−) against preceding year	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Besides the above mentioned, the following steamers are hired for use:—the Egesanmaru with 1,462.43 tons, the Kosaimaru with 2,635.18 tons, the Kaiseima-u with 81.96 tons, the Horaimaru with 53.82 tons, making a total of 4 representing 4,233.39 tons.

Table No. XII.

RESULTS OF LOCOMOTIVE WORKING ACCORDING TO JURISDICTION.

Item \ Jurisdiction	Eastern Division		Central Division		Western Division		Kyushu Division		Hokkaido Division		Total	
	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year
Locomotive mileage ... ... *mile*	16,946,993.4	1,393,422.2	18,039,597.7	1,927,283.2	15,599,172.0	1,595,709.4	8,292,405.3	955,865.3	5,874,931.6	898,566.7	64,753,040.0	6,780,847.3
Vehicle mileage ... ... „	284,415,382.0	29,320,920	292,645,484.0	33,846,511	263,590,698.9	42,632,472.8	152,294,493.3	3,022,122.7	90,719,502.2	9,922,031.0	1,083,665,560.4	118,754,058.4
Coal consumed for running — amount ... ... *kin*	811,739,389 (10,231,772)	93,466,686	643,185,268 (7,374,172)	63,273,887	512,407,526	73,245,459	240,474,937	36,694,499	314,289,083	84,932,070	2,504,580,259	357,384,721
Coal consumed for running — value ... ... *yen*	1,487,499	197,424	2,507,134	226,184	1,557,759	187,057	515,350	42,629	513,215	123,294	6,580,958	776,587
do. per 100 loco miles — amount ... ... *kin*	4,790	172	3,565	△ 34	3.285	148	2,900	119	5,350	741	3.895	.151
do. per 100 loco miles — value ... ... *yen*	8.777	.483	13.898	△ .259	9.986	.198	6.215	△ 237	8.736	.901	10.163	.151
do. per 100 vel icle miles — amount ... ... *kin*	2,854	38	2,198	△ 43	1,944	△ 44	1,570	214	3,464	625	2.327	78
do. per 100 vel icle miles — value ... ... *yen*	5.230	.173	8.567	△ .247	5.91	△ .293	3.384	.217	5.657	.831	6.073	.058
Oil consumed for cylinders — amount ... ... *sho*	62,744.86	7,461.51	69,325.46	12,799.3	55,037.42	8,044.01	27,570.00	2,267.8	17,654.19	2,363.14	235 331.93	32,533,84
Oil consumed for cylinders — value ... ... *yen*	20,647.504	3,211.526	26,866.242	8,359.163	20,109.174	4,542,423	9,217.895	817.437	6,031.927	1,266.792	82,872.742	17,941.577
do. per 100 loco miles — amount ... ... *sho*	.37	1	.38	3	.35	—	.33	△ .02	.30	—	.36	△ .02
do. per 100 loco miles — value ... ... *yen*	.122	.01	.149	.034	.329	.014	.111	.003	.103	.007	.126	△ .016
Oil consumed for machines — amount ... ... *sho*	139,073.78		200,191.88		93,090.96		43,805.08		32,089.73		508,251.43	
Oil consumed for machines — value ... ... *yen*	22,559.644		35,487.201		16,575.224		7,436.944		5,400.066		87,459.079	
do. per 100 loco miles — amount ... ... *sho*	.82		1.11		.60		.53		.55		.78	
do. per 100 loco miles — value ... ... *yen*	.138		.197		.106		.090		.092		.135	
Average No. of vehicles hauled per loco per mile	16.78	.38	16.22	.16	16.90	.95	18.37	△ 2.00	15.44	△ .80	16.74	△ .10
Average loco mileage per day ... *mile*	79.8	△ .2	83.9	7.9	83.6	4.6	87.0	11.0	84.7	12.7	83.2	△ 11.2

N.B.—Parenthetical figures indicate the amount of oil dregs converted at the rate of one *sho* of oil = 5.4 *kin* of coal.

Table No. XIII.

PRINCIPAL NEW WORKS AT SHOPS.

Jurisdiction	Item	Rolling Stock			Track Appliances									Bridge Girders and Appliances					Buildings and Water Supply Appliances		Electric Appliances		
		Locos erected	Carriages	Wagons	Signals	Interlocking apparatus	do., simple type	Points	Crossings	Turntables	Traversers	Buffer stops	Fish-plates	Overbridges	Bridge girders rolled	Bridge girders plate	Longitudinal girders	Box girders	Chimney pipes	Water reservoirs	Cells	Electric motors	Electric fans
					set	*set*	*set*	*set*	*set*	*set*	*set*			*span*	*span*	*span*		*span*	*set*	*set*	*set*	*set*	*set*
Eastern Division	Omiya	18	17	128	—	—	—	403	443	7	1	400	4,455	—	—	24	16	—	129	—	—	—	—
	Morioka	—	—	101	—	—	—	—	—	3	—	—	48	—	—	—	—	—	33	—	—	—	—
	Tsuchizaki	—	—	110	—	—	—	—	35	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Honjo	—	—	—	—	—	—	20	20	—	—	17	—	—	5	3	—	—	—	—	—	—	—
Central Division	Shimbashi	6	34	—	301	—	25	32	88	—	1	135	8,427	—	124	4	—	—	—	1	—	1	14
	Numazu	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Hamamatsu	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Nagano	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—	1	—	—	1
	Kanazawa	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Western Division	Kobe	—	36	159	124	—	322	170	114	—	—	—	—	2	—	17	13	—	—	—	—	—	—
	Takatori	—	—	100	48	9	12	100	86	2	1	155	—	—	25	53	25	11	—	—	1,066	3	20
	Hiroshima	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Shimonoseki	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Minatomachi	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Yokkaichi	—	—	70	—	—	—	98	83	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Ikeda	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Tadotsu	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kyushu Div.	Kokura	—	3	—	20	—	4	63	236	2	—	—	—	—	10	—	—	—	—	—	—	—	—
	Wakamatsu	—	—	—	—	—	—	120	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Yukuhashi	—	—	—	5	—	78	91	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hokkaido Division	Asahigawa	—	—	7	—	—	—	74	64	—	—	—	—	—	—	—	—	—	—	7	—	—	—
	Iwamizawa	—	—	—	—	—	—	98	64	—	—	—	—	—	—	—	—	—	4	—	—	—	—
	Temiya	—	—	—	6	—	—	107	90	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Sapporo	—	3	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Hakodate	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	Eastern Division	18	17	339	—	—		423	498	10	1	417	4,503	—	5	27	16	—	162	—	—	—	—
	Central Division	6	34	—	301	—	25	32	88	—	1	137	8,427	—	124	4	—	—	—	2	—	1	15
	Western Division	—	36	329	172	9	334	368	283	2	1	155	—	2	25	70	38	11	—	—	1,066	3	20
	Kyushu Division	—	3	—	25	—	82	274	296	2	—	—	—	—	10	—	—	—	—	—	—	—	—
	Hokkaido Division	—	3	14	6	—	—	279	157	—	—	—	—	—	—	—	—	—	4	7	—	—	—
Grand total		24	93	682	504	9	441	1,376	1,322	14	3	709	12,930	2	164	101	54	11	166	9	1,066	4	35

Table No. XIII.

PRINCIPAL NEW WORKS AT SHOPS.—*Continued.*

Jurisdiction	Item	Machines and Tools														Nails and Bolts	
		Machines for shops	Drilling machines	Hydraulic presses	Boxes & book cases	Wrenches	Petroleum engines	Trolleys and other vehicles	Cranes and winches	Hammers	Screw-drivers	Marking-off tables and anvils	Beaters	Shovels	Lamps	Iron pipes	
		set	*set*	*set*		*set*	*set*	*set*								*ft.*	*l.b.*
Eastern Divisions	Omiya	—	—	—	70	—	—	2	—	—	204	8	—	—	—	—	166,088	—
	Morioka	—	—	—	12	—	—	2	—	—	—	11	—	—	—	—	730	9,517
	Tsuchizaki	17	—	—	14	—	—	—	2	—	—	2	—	—	10	76	6,756	18
	Honjo	2	—	—	—	—	—	2	—	—	4	—	—	—	—	—	8,700	440
Central Division	Shimbashi	—	—	—	—	—	—	42	—	—	—	—	—	28	—	—	—	—
	Numazu	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Hamamatsu	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Nagano	—	—	—	—	—	—	—	—	—	—	—	300	—	—	—	—	—
	Kanazawa	—	—	—	—	—	—	—	—	—	—	—	300	1,004	—	—	—	—
Western Division	Kobe	—	—	—	—	—	—	7	—	—	201	—	—	1	387	—	—	5,167
	Takatori	—	—	1	—	—	—	—	—	13	9	—	—	—	—	3,218	—	2,175
	Hiroshima	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	250
	Shimonoseki	—	—	—	—	—	—	—	—	—	21	—	—	—	—	—	—	133
	Minatomachi	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Yokkaichi	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	598
	Ikeda	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Tadotsu	1	—	—	—	—	—	—	—	—	—	—	—	—	26	—	—	1,850
Kyushu Div.	Kokura	—	—	—	—	—	—	14	—	190	6	—	—	—	321	—	—	13,470
	Wakamatsu	—	—	—	—	—	—	—	—	—	14	—	—	—	—	—	—	4,259
	Yukuhashi	—	—	—	—	—	—	—	—	27	120	—	—	—	—	—	—	77475
Hokkaido Division	Asahigawa	—	—	—	—	—	—	10	—	1	38	—	—	—	—	—	3,978	11,885
	Iwamizawa	1	1	—	—	1	1	6	—	—	—	—	—	—	754	—	856	66,967
	Temiya	—	—	—	—	—	—	20	—	—	239	—	20	—	130	—	22,261	476
	Sapporo	—	—	—	—	—	—	—	—	—	126	—	—	—	21	—	—	37
	Hakodate	—	—	—	—	—	—	—	—	82	66	—	27	—	30	—	3,521	19,630
Total	Eastern Division	19	—	—	96	—	—	6	2	—	208	21	—	—	10	76	182,274	9,975
	Central Division	—	—	—	—	—	—	42	—	—	—	—	600	1,032	—	—	—	—
	Western Division	1	—	1	—	—	—	7	—	14	231	—	—	1	413	3,218	—	10,173
	Kyushu Division	—	—	—	—	—	—	14	—	217	140	—	—	—	321	—	—	95,204
	Hokkaido Division	1	1	—	—	1	1	36	—	83	469	—	47	—	935	—	30,616	98,995
Grand total		21	1	1	96	1	1	105	2	314	1,048	21	647	1,033	1,679	3,294	212,890	214,347

Table No. XIV.

NUMBER AND WAGES OF LABOURERS AT THE WORKS.

Jurisdiction	Item	No. of labourers at the end of the year	No. of labourers Average during the year	No. of work days	No. of day's work	No. of day's work reduced	Wages	Average No. and wages of labourers per day No.	Average No. and wages of labourers per day Wages	Average No. of labourers and wages per day per capita No. reduced	Average No. of labourers and wages per day per capita Wages
							yen		*yen*		*yen*
Eastern Division	Omiya	2,825	2,645	318	822,099	932,680	632,040	2,585	1,988	1.13	.769
	Morioka	573	560	313	172,462	186,463	105,680	551	338	1.08	.613
	Tsuchizaki	701	669	329	299,685	244,793	105,108	695	310	1.07	.458
	Honjo	283	292	317	81,796	89,416	59,000	258	186	1.09	.721
Central Division	Shimbashi	2,145	2,519	328	778,401	856,966	637,733	2,373	1,944	1.10	.819
	Numazu	—	154	182	27,215	32,707	20,036	150	110	1.20	.736
	Hamamatsu	464	342	134	46,768	50,574	32,844	349	245	1.08	.702
	Nagano	665	649	331	209,184	229,690	133,533	632	403	1.10	.734
	Kanazawa	470	414	334	127,882	141,457	78,324	384	234	1.11	.612
Western Division	Kobe	1,330	1,438	316	454,448	496,904	345,443	1,438	1,093	1.09	.760
	Takatori	1,637	1,691	320	519,590	562,485	392,709	1,624	1,227	1.08	.756
	Hiroshima	66	156	309	41,717	46,808	24,405	135	79	1.12	.585
	Shimonoseki	306	307	327	94,340	101,834	68,109	289	208	1.08	.722
	Minatomachi	148	143	321	43,846	50,041	33,787	137	105	1.14	.771
	Yokkaichi	534	574	317	172,648	194,659	116,064	545	366	1.13	.672
	Ikeda	153	144	324	46,790	50,056	30,550	144	94	1.07	.653
	Tadotsu	88	95	307	29,447	30,295	17,394	90	57	1.03	.591
Kyushu Division	Kokura	1,273	1,160	311	363,358	378,994	269,903	1,168	868	1.04	.743
	Wakamatsu	355	349	318	105,381	115,609	79,026	331	249	1.09	.750
	Yukuhashi	895	780	312	230,728	240,265	163,912	740	525	1.04	.710
Hokkaido Division	Asahigawa	482	441	331	141,140	167,759	115,355	426	349	1.19	.817
	Iwamizawa	502	452	324	144,538	171,055	119,244	446	368	1.18	.825
	Temiya	337	285	330	92,183	103,436	66,249	279	201	1.12	.719
	Sapporo	266	266	326	82,111	88,617	62,387	252	191	1.08	.760
	Hakodate	160	113	341	42,342	49,722	32,135	124	94	1.17	.759
Total	Eastern Division	4,382	4,166	319	1,306,042	1,453,352	901,834	4,094	2,827	1.11	.690
	Central ,,	3,744	4,078	318	1,189,450	1,311,394	902,470	3,741	2,837	1.10	.759
	Western ,,	4,262	4,548	318	1,402,826	1,533,172	1,028,461	4,411	3,234	1.00	.733
	Kyushu ,,	2,523	2,289	313	699,467	734,868	512,841	2,235	1,638	1.05	.733
	Hokkaido ,,	1,747	1,557	329	502,314	580,589	395,370	1,527	1,202	1.16	.787
	Total	16,658	16,638	319	5,100,099	5,613,375	3,740,976	15,989	11,727	1.10	.733

Table

PRINCIPAL REPAIR

Jurisdiction	Item	Rolling Stock			Track Appliances							
		Locos	Carriages	Wagons	Signals	Interlocking apparatus	Interlocking apparatus (simple type)	Points	Crossings	Turntables	Traversers	Buffer stops
					set	*set*	*set*	*set*	*set*	*set*	*set*	
Eastern Division	Omiya	627	994	13,022	—	—	—	58	—	—	—	18
	Morioka	241	190	1,763	—	—	—	27	6	5	—	—
	Tsuchizaki	208	200	2,205	—	—	—	4	—	2	—	—
	Honjo	71	1,090	1,554	—	—	—	1	1	6	—	—
Central Division	Shimbashi	164	1,418	4,595	8	7	—	8	14	17	1	—
	Numazu	—	1	1,933	—	—	—	—	—	—	—	—
	Hamamatsu	8	—	—	—	—	—	—	—	—	—	—
	Nagano	112	626	2,333	—	1	—	—	—	—	—	—
	Kanazawa	43	399	2,222	—	—	1	—	3	—	—	4
Western Division	Kobe	—	970	11,263	—	—	—	—	—	—	—	—
	Takatori	199	645	5,810	4	7	3	—	10	—	—	—
	Hiroshima	1	276	1,459	—	—	1	5	—	—	—	—
	Shimonoseki	43	448	1,670	—	—	—	—	—	—	—	—
	Minatomachi	—	411	745	—	—	—	—	—	—	—	—
	Yokkaichi	76	890	2,017	—	—	—	—	—	—	—	—
	Ikeda	—	364	1,439	1	—	—	6	—	—	—	—
	Tadotsu	4	86	22	—	—	—	—	—	—	—	—
Kyushu Division	Kokura	138	298	1,937	—	—	—	3	13	2	—	—
	Wakamatsu	44	99	1,964	—	—	7	19	17	6	7	—
	Yukuhashi	89	271	2,656	—	—	—	20	8	6	19	—
Hokkaido Division	Asahigawa	81	201	1,217	2	—	—	48	17	—	—	—
	Iwamizawa	89	124	7,573	1	—	—	—	4	—	—	—
	Temiya	51	31	2,997	14	—	—	—	—	—	—	—
	Sapporo	—	143	1,300	—	—	—	—	—	2	—	—
	Hakodate	37	148	915	—	—	—	—	—	—	—	—
Total	Eastern Division	1,147	2,474	18,544	—	—	—	90	7	13	—	18
	Central Division	527	2,444	11,083	8	8	1	8	17	17	1	4
	Western Division	323	4,090	24,434	5	7	4	11	10	—	—	—
	Kyushu Division	271	668	6,557	—	—	7	42	38	14	26	—
	Hokkaido Division	258	647	14,002	17	—	—	48	21	2	—	—
Grand total		2,326	10,323	74,620	30	15	12	199	93	46	27	22

No. XV.

WORKS AT SHOPS.

Bridge Girders and Appliances		Buildings and Water Supply Appliances		Electric Appliances			Machines															
Bridge girders																						
rolled	plate	Chimney pipes	Water reservoirs	Cells	Electric motors	Electric fans	Rock-borers	Machines for shops	Cranes and winches	Wrenches	Drilling machines	Petroleum engines	Boilers	Pumps	Trolleys and other vehicles	Jacks	Hammers	Screw-drivers	Beaters	Shovels	Lamps
span	*span*	*set*	*set*	*set*	*set*	*set*	*set*	*set*		*set*	*set*	*set*	*set*	*set*	*set*						
8	20	—	—	—	—	—	—	—	3	1	—	—	1	2	143	61	27	230	926	1,348	10,531
4	—	—	—	—	—	—	—	—	1	—	15	3	1	1	58	17	39	152	1,229	409	2,141
2	—	—	—	—	—	—	—	—	12	—	—	—	—	1	29	23	6	40	—	—	644
—	—	—	—	—	—	—	—	—	—	—	7	—	—	—	5	—	28	45	174	103	1,813
—	8	—	6	—	—	—	—	19	—	—	—	—	1	9	176	8	377	586	741	4,974	24,175
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	84	2	—	408	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7	50	—	79	—
—	3	2	—	—	—	—	—	2	—	—	—	—	—	2	19	10	64	298	5	218	4,490
—	—	—	—	—	—	—	—	2	—	—	—	—	—	3	28	6	20	280	—	1,140	6,464
—	—	—	—	—	—	—	2	1	—	—	—	—	—	—	—	—	371	697	2,300	168	10,688
7	14	—	—	17	4	80	—	—	—	—	—	1	—	—	—	—	352	572	1,346	205	1,536
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	107	218	3,069	565	766
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	95	130	570	—	466
—	—	—	—	—	—	—	—	—	1	—	—	—	1	—	—	—	167	218	654	52	441
2	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	106	66	431	8	5,703
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	45	43	234	—	84
—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	63	41	104	18	623
—	—	—	—	—	—	—	—	—	—	12	—	—	—	—	—	—	1,404	251	2	4	533
—	4	—	—	—	—	—	—	—	—	5	2	—	—	—	—	—	69	189	69	274	—
—	1	14	1	—	—	—	—	—	—	—	7	1	—	—	11	—	85	240	629	9	117
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	25	—	—	194	—	—	189
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	80	178	762	61	1,295
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	111	501	140	1,650
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	49
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	67	50	105	341	294
14	20	—	—	—	—	—	—	—	16	1	22	3	2	4	235	101	100	467	2,329	1,860	15,129
—	11	2	6	—	—	—	—	23	—	—	—	—	1	14	223	24	552	1,216	746	5,919	35,129
9	14	—	—	17	4	80	2	1	2	—	—	2	1	—	—	—	1,306	1,985	8,708	1,016	20,307
—	5	14	1	—	—	—	—	—	—	17	9	1	—	—	11	—	1,558	680	700	287	650
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	25	—	156	533	1,368	542	3,477
23	50	16	7	17	4	80	2	24	18	18	31	6	4	18	494	125	3,672	4,881	13,851	9,624	74,692

Table No. XVI.

TELEGRAPH AND TELEPHONE LINES AT THE END OF YEAR.

Item	Jurisdiction	Eastern Division	Central Division	Western Division	Kyushu Division	Hokkaido Division	Total	Inc. or dec. (△) against preceding year
Length	Line (*ri. cho. ken.*)	587.03.52	466.23.43	507.26.46	252.26.13	354.19.08	2,168.27.42	98.06.53
	Wire (*ri. cho. ken.*)	6,021.17.13	5,155.35.24	4,609.34.44	1,046.02.32	3,489.35.32	21,223.17.25	3,775.20.50
Poles and Struts	Poles — Main poles	38,105	33,042	32,684	16,751	24,196	144,778	10,108
	Poles — Stays	558	1,863	1,556	547	4,006	8,530	△ 941
	Poles — Total	38,663	34,905	34,240	17,298	28,202	153,308	9,257
	Struts	38,376	34,764	20,385	11,419	9,128	114,072	19,541
Beams		124,104	105,372	95,974	44,109	79,379	448,938	64,449
Insulators		429,730	379,016	310,954	142,676	251,417	1,522,793	293,035
No. of poles per mile of line		64.9	70.8	64.3	66.2	68.2	66.7	1.7
No. of stays per mile of line		1.0	4.0	3.1	2.2	11.3	3.9	.7
No. of struts per mile of line		65.4	74.4	40 1	45.1	25.7	52.6	△ 7.0
Length of wire per mile of line (*ri. cho. ken.*)		10.09.13	11.01.45	9.02.51	7.25.13	9.30.23	9.28.18	1.12 50
No. of beams per pole		3.3	3.2	2.9	2.6	3.3	3.1	.2
No. of insulators per pole		11.3	11.5	9.8	8.5	10.4	10.5	1.4

Table No. XVII.

TELEGRAPH AND TELEPHONE CIRCUITS AT THE END OF THE YEAR.

Jurisdiction	Item	Telegraph circuits		Telephone ciruits		Signal circuits		Total		Inc. or dec. (△) against preceding year	
		No.	Length	No.	Length	No.	Length	No.	Length	No.	Length
			ri. cho. ken.		*ri. cho ken.*		*ri. cho. ken.*		*ri. cho. ken.*		*ri. cho. ken.*
Eastern Division	Single	54	1,491.06.14	369	2,390.32.29	442	96.00.55	865	3,978 03.38	125	2,195.33.05
	Combination	12	1,044.02.29	462	1,075.06.57	386	551.06.51	860	2,670.16.17	88	△ 1,126.29.01
	Total	66	2,535.08.43	831	3,466.03.26	828	647.07.46	1,725	6,648.19 55	213	1,069.04.04
Central Division	Single	58	1,225.19.55	653	697.20.29	496	105.19.46	1,207	2,028.24.10	378	△ 240.24.21
	Combination	36	1,431.22.43	384	1,977.10.57	318	458.27.51	738	3,867.25.31	22	136.10.54
	Total	94	2,657.06.38	1,037	2,674.31.26	814	564.11.37	1,945	5,896.13.41	400	376.35.15
Western Division	Single	26	842.14.30	587	877.23.13	518	112.10.54	1,131	1,832.12.37	338	149.00.39
	Combination	40	1,273.32.05	437	2,105 33.29	392	491.26.35	869	3,871.20.09	268	1,294.12.21
	Total	66	2,116.10.35	1,024	2,983.20.42	910	604.01.29	2,000	5,703.32.46	606	1,145.11.42
Kyushu Division	Single	37	689.01.58	236	784.10.09	187	59.04.27	460	1,532.16.34	70	169.15.12
	Combination	—	—	170	218.27.32	160	218.04.09	330	436.31.41	40	44.31.21
	Total	37	689.01.58	406	1,003.01.41	347	277.08.36	790	1,969.12.15	110	214.10.33
Hokkaido Division	Single	40	1,256.28.59	321	1,386.35.25	79	27.03.13	440	2,670.31.37	128	1,396.06.50
	Combination	—	—	189	545.20.49	184	247.31.21	373	893.16.10	7	△ 893.01.08
	Total	40	1,256.28.59	510	1,932.20.14	263	374.34.34	813	3,564.11.47	135	503.05.42
Total	Single	215	5,504.35.36	2,166	6,137.13.45	1,722	400.03.15	4,103	12,042.16.36	1,039	3,853.06.49
	Combination	88	3,749.21.17	1,642	5,922.27.44	1,440	2,067.24.47	3,170	11,740.01.48	425	△ 544.11.33
	Total	303	9,254.24.53	3,808	12,060.05.29	3,162	2 467.28.02	7,273	23,782.18.24	1,464	3.308.31.16

Table No. XVIII.

TELEGRAPH AND TELEPHONE APPARATUS AND BLOCK INSTRUMENTS AT THE END OF THE YEAR.

Item \ Jurisdiction		Eastern Division	Central Division	Western Division	Kyushu Division	Hokkaido Division	Total	Inc. or dec. (△) against preceding year.
Telegraph Apparatus	on actual service	536	564	379	243	355	2,077	12
	in reserve	131	147	117	95	147	637	35
	Total	667	711	496	338	502	2,714	47
Telephone Apparatus	on actual service	1,690	2,107	2,316	992	1,073	8,178	1,289
	in reserve	179	216	277	193	193	1,058	47
	Total	1,869	2,323	2,593	1,185	1,266	9,236	1,336
Block Instruments	on actual service	729	687	696	327	359	2,798	376
	in reserve	70	65	63	38	34	270	△ 2
	Total	799	752	759	365	393	3,068	374
Telephone Exchange Apparatus	on actual service	19	12	31	6	15	83	38
	in reserve	2	1	1	7	11	22	7
	Total	21	13	32	13	26	105	45
Automatic Time-Sounders	on actual service	17	8	11	3	5	44	2
	in reserve	1	1	—	—	14	16	3
	Total	18	9	11	3	19	60	5
Repeaters	on actual service	185	285	225	245	79	1,019	225
	in reserve	15	45	8	43	10	121	64
	Total	200	330	233	288	89	1,140	289

N. B.—The apparatus in the Head Office are included in the figures of the Central Division.

Table No. XIX.

STOCK OF CELLS AT THE END OF THE YEAR.

Kind	Jurisdiction	Eastern Division	Central Division	Western Division	Kyushu Division	Hokkaido Divison	Total	Inc. or dec. (△) against preceding year
Daniel's	on actual service	7,364	15,110	5,225	3,568	4,564	35,831	832
	in reserve	300	440	70	—	150	960	480
	Total	7,664	15,550	5,295	3,568	4,711	36,791	1,312
Dry	on actual service	16,015	9,962	15,432	5,531	10,255	57,195	8,324
	in reserve	1,322	5	5	—	182	1,514	934
	Total	17,337	9,967	15,137	5,531	10,437	58,709	9,258
Leclanche's	on actual service	—	—	—	—	—	—	△ 411
	in reserve	—	—	—	—	—	—	—
	Total	—	—	—	—	—	—	△ 411
Gravity	on actual service	56	344	—	23	43	466	56
	in reserve	30	2	—	—	—	32	32
	Total	86	346	—	23	43	498	88
Fuller's	on actual service	—	—	—	—	6	6	△ 2
	in reserve	—	—	—	—	—	—	—
	Total	—	—	—	—	6	6	△ 2
Storage Batteries	on actual service	48	202	877	—	—	1,127	279
	in reserve	18	34	371	—	—	423	209
	Total	66	236	1,248	—	—	1,550	488

Table No. XX.

RESULTS OF MESSAGE TRAFFIC.

Kind	Jurisdiction	Eastern Division	Central Division	Western Division	Kyushu Division	Hokkaido Division	Grand total	Inc. or dec. (△) against preceding year
No. of stations open to railway telegram service		347	317	385	173	182	1,404	51
No. of stations accepting public telegrams		230	176	253	132	100	891	29
Ratio of stations accepting public telegrams per 100 of stations open to railway telegrams		66	56	66	76	55	63	△ 1
No. of railway telegrams	Despatched	3,219,856	4,916,681	3,694,820	1,175,551	1,806,015	14,812,923	1,407,317
	Received	3,168,266	5,858,491	3,734,900	1,205,949	1,838,729	15,806,335	1,356,819
	Transit	2,090,785	2,792,412	3,416,444	936,036	888,341	10,124,018	△ 137,850
	Total	8,478,907	13,567.584	10,846,164	3,317,536	4,533,085	40,743,276	2,626,286
No. of public telegrams	Despatched	547,677	538,323	717,832	398,836	362,182	2,564,850	99,193
	Received	185,574	151,528	190,879	139,776	99,381	767,138	3,914
	Transit	700,392	774,842	774,799	575,279	347,694	3,173,006	91,073
	Total	1,433,643	1,464,693	1,683,510	1,113,891	809,257	6,504,994	194,180
Grand total		9,912,550	15,032,277	12,529,674	4,431,427	5,342,342	47,248.270	2,820,466
Average No. of railway telegrams dealt with per day per station		67	117	77	53	68	80	3
Average No. of public telegrams dealt with per day per station		17	23	18	23	22	20	0
Total		78	120	89	70	80	92	2
Ratio of messages received per 100 of raillway messages despatched		98	119	101	103	102	107	△ 1
Ratio of messages transit per 100 of railway messages despatched		67	57	92	80	49	68	△ 9
		yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
Share of Imperial Gov. Rlys in public telegram receipts	Despatched messages	24,651.175	24,960.975	32.580.050	18,236.900	16,631.100	117,060.200	5,231.275
	Received „	5,001.440	4,351.140	5,105.220	4,322.740	2,908.660	21,689.200	111.660
	Transit „	16,029.100	17,994.850	17,724.025	13,329.675	7,939.550	73,017.200	1,982.850
	Exchanged „	.340	—	115.380	41.475	—	157.195	10.625
	Delivery charges	5,653.915	5,030.516	5,554.615	4,428.370	2,770.895	23,438.311	△ 232.772
	Receipt notes	22.290	17.070	19.890	13.680	19.380	92.310	26.820
	Copying	3.400	2.050	5.100	1.750	4.000	16.300	5.450
	Total	51,361.660	52,356.601	61,104.280	40,374.590	30,273.585	235,470.716	7.135.908
Receipts from messages dealt with per station		223,312	297.481	241.519	305.868	302.736	264.277	2.425

TABLE NO. XXI.

MOTORS, GENERATORS AND TRANSFORMERS AT THE END OF THE YEAR.

Item / Jurisdicition	Prime motors		Generators		Transformers or converters	
	No.	Total H. P.	No.	Total H. P.	No.	Total H. P.
		k. w.		*k. w.*		*k. w.*
Eastern Division	7	4,130	8	3,750	29	5,150
Central Division	9	2,025	11	1,272	31	2,136
Western Division	12	1,085	12	785	9	635
Kyushu Division	7	535	8	340	8	68
Hokkaido Division	8	769	7	442.5	11	72
Total	43	8,544	46	6,989.5	88	8,061
Inc. of dec. (△) against preceding year	3	3,420	3	3,274.5	20	5,162

Table No. XXII.

POWER CABLES AT THE END OF THE YEAR.

Jurisdiction	Item	Poles			Struts and Stays			Length of lines	Length of wires	Beams	Insulators
		Main poles	Sub-poles	Total	Struts	Stays	Total				
								ri.cho.ken.	*ri cho.ken.*		
Eastern Division	self-supplied	2,645	85	2,730	114	1,788	1,902	24.09.44	86.32.53	6,837	15,535
	purchased	1,700	95	1,795	35	835	872	12.15.37	29.23.51	4,752	8,964
	Total	4,345	180	4,525	149	2,623	2,770	36.25.21	116.20.44	11,589	24,499
Central Division...	self-supplied	2,971	1,419	4,390	246	3,203	3,449	32.34.19	152.31.51	7,571	30,519
	purchased	1,000	—	1,000	—	60	60	8.35.18	20.31.04	1,269	3,049
	Total	3,971	1,419	5,390	246	3,263	3,509	41.33.37	173.26.55	8,840	33,564
Western Division	self-supplied	1,112	—	1,112	18	401	419	9.34.03	32.26.22	2,143	6,304
	purchased	856	—	856	12	203	215	6.17.10	15.22.45	1,058	2,545
	Total	1,968	—	1,968	30	604	634	16.15.13	48.13.07	3,201	8,849
Kushu Division	self-supplied	347	—	347	1	181	182	3.25.38	10.27.25	643	1,514
	purchased	1,130	—	1,130	33	275	308	6.21.03	21.19.06	1,563	3,729
	Total	1,477	—	1,477	34	456	490	10.10.41	32.10.31	2,206	5,245
Hokkaido Division	self-supplied	339	—	339	20	143	163	3.16.11	10.30.17	828	1,976
	purchased	288	—	288	5	57	62	2.19.07	6.24.17	359	2,069
	Total	627	—	627	25	200	225	5.35.18	17.18.34	1,187	4,045
Total	self-supplied	7,414	1,504	8,918	399	5,716	6,115	74.11.55	294.04.48	18,022	55,843
	purchased	4,974	95	5,096	85	1,430	1,515	37.00 15	94.13.03	9,001	20,356
	Total	12,388	1,599	13,987	484	7,146	7,630	111.12.10	388.17.51	27,023	76,199
Inc. or dec. (△) against preceding year...	self-supplied	1,358	34	1,392	56	△ 264	△ 208	21.19.08	66.34.38	6,013	25,780
	purchased	1,498	95	1,593	40	490	536	9.04.06	25.26.43	2 033	5,133
	Total	2,856	129	2,985	96	232	328	30.23.14	62·25.21	8.046	30,913

POWER CABLES AT THE END OF THE YEAR.

Item	Jurisdiction	Eastern Division	Central Division	Western Division	Kyushu Division	Hokkaido Divi ion	Grand total	Inc. or dei. (△) against preceding year
per mile of lines	No. of poles	122.3	128.3	123.0	147.7	104.5	126.0	9.8
	No. of sub-poles	4.0	5.9	1.9	3.4	4.2	4.4	.4
	No. of stays	70.9	77.7	37.8	45.6	33 3	64.4	21.0
	Lenght of wires (*ri.cho.ken.*) ...	3.06.20	5.11.26	2.34.01	3.04.54	2.33.26	3.17.37	6.21
per pole	No. of beams	2.6	1.6	1.6	1.5	1.9	1.9	.2
	No. of insulators	5.4	6.2	4.5	3.5	6.5	5.4	1.3

Table No. XXIII.

FLECTRIC MOTOR STOCK AT THE END OF THE YEAR.

Jurisdiction \ Item	Electirc Motor	
	No.	Capacity
	set	*h.p.*
Eastern Division	87	1,092,604
Central Division	131	1,228,655
Western division	96	1,198,076
Kyushu Division	1	1,492
Hokkaido Division	26	477,440
Total	341	3,998,267
Inc. over precedeng year	88	724,632

Table No. XXIV.

ELECTRIC LAMPS AT THE END OF THE YEAR.

Jurisdiction \ Item		Glow			Arc		
		No.	Amount of watts	Average amount of watts apiece	No.	Amount of watts	Average amount of watts apiece
Eastern Division	self-supplied ...	3,195	147,949	46.3	120	69,418	578.5
	purchased ...	6,464	345,788	43.5	99	61,500	621.2
	Total	9,659	493,737	51.1	219	130,918	597.8
Central Diuision	self-supplied ...	6,136	374,161	61.0	78	37,137	476.1
	purchased ...	7,427	384,436	51.8	98	59,005	602.1
	Total	13,563	758,597	55.9	176	96,142	546.3
Western Division	self-supplied ...	6,589	403,900	61.3	105	66,840	636.6
	purchased ...	4,607	236,000	51.2	49	29,400	600.0
	Total	11,196	639,900	57.2	154	96,240	624.9
Kushu Division	self-supplied ...	1,266	76,053	60.1	136	81,600	600.0
	purchased ...	2,867	177,419	61.9	75	45,000	600.0
	Total	4,133	253,472	61.3	211	126,600	600.0
Hokkaido Divi-ion ...	self-supplied ...	2,841	136,926	48.2	50	30,300	600.0
	purchased ...	1,674	69,274	41.4	44	28,000	636.4
	Total	4,515	206,200	45.7	94	58,000	617.0
Total	self-supplied ...	20,027	1,138,989	56.9	489	284,995	582.8
	purchased ...	23,039	1,212.917	52.6	365	222,905	610.7
	Total	43,066	2,351,906	54.6	854	507,900	594.7
Inc. or dec. (△) against precedihg year ...	self-supplied ...	4,411	—	—	△ 7	—	—
	purchased ...	3,648	—	—	6	—	—
	Total	8,059	—	—	△ 1	—	—

Table No. XXV.

RESULTS OF WORKING POWER STATIONS.

Jurisdiction	Item	Generating capacity	Coal consumed	Expenses				Average per K.W.	
				Fuel	Repair	Others	Total	Coal consumed	Expenses
		K.W.H.	*kin*	*yen*	*yen*	*yen*	*yen*	*yen*	*kin*
Eastern Division	Omiya Works	885,000	7,155,512	11,151.413	4,947.212	5,762.972	21,861.597	.0247	8.1
	Sannaigawa Power Station	793,284	—	—	478.767	3,750.728	4,229.495	.0053	—
	Yokokawa Power Station	2,577,035	20,015,875	35,305.879	6,541.870	16,842.690	85,690.439	.0228	7.8
	Total	4,255,319	27,171,387	46,457.292	11,967.849	26,356.390	84,781.531	.0199	—
Central Division...	Shimbashi Power Station	1,312,902	10,422,300	18,891.052	2,011.699	7,689.335	28,592.086	.0218	7.9
	Kashiwagi Power Station	2,029,523	15,616,400	26,530.000	557.816	11,728.246	38,816.062	.0191	7.7
	Hamamatsu Power Station	116,512	842,993	2,907.582	—	833.653	3,741.235	.0321	7.2
	Total	3,458,937	26,881,693	48,328.634	2,569.515	20,251.234	71,149.383	.0206	7.8
Western Division	Osaka Power Station	272,741	1,955,316	6,011.358	1,513.692	2,687.616	10,212.666	.0374	7.2
	Takatori Power	1,546,169	8,770,672	27,838.750	631.260	9,362.874	37,832.884	.0245	5.7
	Himeji Power Station	130,989	* 34,000 1,707,740	5,299.745	739.650	1,907.634	7,947.029	.0607	—
	Okayama Power Station...	93,586	* 117,170 982,620	2,850.433	499.830	1,078.895	4,429.158	.0473	—
	Hiroshima Power Station	108,006	* 36,350 979,350	2,473.642	431.730	1,664.905	4,570.277	.0423	—
	Mitajiri Power Station	6,474	* 15,455 47,495	166.524	13.122	220.417	400.063	.0618	—

Kyushu Division	Shimonoseki Power Station	346.905		2,524,294	7,358.419	1,874 892	3,832.569	13,065.880	.0377	7.3
	Total	2,504,810	*	202 975 16,977,487	51,998.871	5,704.176	20,754.910	78,457.957	.0313	
	Moji Power Station	179,430		1,152,210	2,667.498	1,562.132	2,954.724	7,184.354	.0400	6.4
	Tobata Power Station	223,361		1,069,430	2,364.569	4,696.819	3,194.519	10,255.907	.0459	4 8
	Wakamatsu Power Station	168,615		1,311,330	2,750.444	1,903.627	2,894.448	7,548.519	.0448	8.0
	Kokura Power Station	3,608		189,200	385.342	—	477.991	863.333	.2393	52.4
	Moji Lighting Station	1,340	×	16,420	284.574	—	204.085	488.659	.3647	△ 12.3
	Total	576,354	×	16,420 3,752,176	8,452.427	8,162.578	9,725.767	26,340.772	.0457	—
Hokkaido Division	Iwamizawa Power Station (A.C.)	211,529		3,027,085	5,213.290	1,506.831	3,702.356	10 422.477	.0493	14.3
	Iwamizawa Power Station (D.C.)	89,790		2,291,783	3.776.190	869.477	2,012.412	6,658.079	.0742	25.5
	Asahigawa Power Station	491,053		4,419,240	8,650.622	1,521.584	5,127.523	15,299.729	.0312	9.0
	Sopporo Works	87,395		1,233,062	2,404.784	68.797	1,032.570	3,506.151	.0401	14.1
	Oiwake Power Station	56,128	○ *	64,937 76,790	922.766	420.198	1,732.796	3,075.760	.0548	—
	Total	935,895	○ *	64,937 76,790 10,971,170	20,067.652	4,386.887	13,607.657	38,962.196	.0416	—
Grand total		11,731,315	○ × *	64,937 16,420 279,765 85,753,913	176,204.876	32,791.003	90,695.958	299,691.889	.0255	—
Inc. or dec. (△) against preceding year		4,428,600	○ △× △* △	31,750 17,376 183,454 31,381,282	70,273.766	19,127.251	21,851.425	111,252.442	△ .003	—

N.B.—Figures marked with the asterisk (*) in the column "Coalconsumed" indicates cokes (×) petroleum and (○) charcoal, petroleum being represented in 1/10 or 1/1000 *koku*.

Table No. XXVI.

RESULTS OF WORKING TRANSFORMER STATIONS.

Jurisdiction	Item		Watts input: Amount	Watts input: Price	Watts output	Expenses: Repair	Expenses: Others	Expenses: Total	Cost price	Average expenses per K. W. H.
			k. h.	*yen*		*yen*	*yen*	*yen*	*yen*	*yen*
Eastern Division	Ueno Charging Station		12,743	1,206.600	7,629	—	49.200	49.200	.0064	.1646
	Tsuchizaki Transformer Station	×	766,001	4,043.509	602,426	4,639.514	3,581.161	8,220.675	.0136	.0204
	Maruyama „ „	×	1,415,440	31,529.943	997,709	2,781.797	3,389.431	6,171.228	.0062	.0378
	Yagasaki „ „	×	1,084,880	24,629.114	703,699	2,990.096	3,460.299	6,450.395	.0092	.0442
	Total		3,279,064	61,409.166	2,311,463	10,441.407	10,480.091	20.891.498	.0090	.0356
Central Division	Ikebukuro Transformer Station	×	1,231,648	23,342.226	1,091,132	69.187	2,683·073	2.752.260	.0025	.0239
	Kashiwagi „ „	×	702,299	13,647.304	702,299	50.856	1,407.420	1,458.276	.0021	.0215
	Hodogaya „ „		174,160	3,940.820	174,160	—	910.290	910.290	.0052	.0279
	Nagano Works		225,569	1,881.949	225,569	313.568	1,140.833	1,454.401	.0064	.0148
	Total		2,333,676	42,812.299	2,193,160	433.611	6,141.616	6,575.227	.0030	.0225
Western Division	Kobe Transformer Station	×	324,909	9,074.759	281,506	3,694.891	2,165.466	5,860.357	.0208	.0531
	Kyoto „ „		49,883	2,095.065	49,883	634.006	232.950	866.956	.0174	.0594
	Total		374,792	11,169.824	331,389	4,328.897	2,398.416	6,727.313	.0203	.0540
Kyushu Division	Moji Charging Station		1,085	37.980	705	—	1.576	1.576	.0022	.0561
	Total		1,085	37.980	705	—	1.576	1.576	.0022	.0561
Hokkaido Division	Sapporo Charging Station		6,119	428.298	6,119	—	59.751	59.751	.0098	.0798
	Total		6,119	428.298	6,119	—	59.751	59.751	.0098	.0798
Grand total			5,994 736	115,857.567	4,842,836	15,173.915	19,081.450	34,255.365	.0071	.0310
Inc. or dec. (△) against preceding year			4,072,551	81,890.751	3,122,906	13.585.718	11,253.420	24,839.147	.0016	.0058

N.B.—The figures marked with the cross (×) represents the amount of Watts supplied by the railway stations, the balance being purchased.

Table No. XXVII.

REDULTS OF WORKING ELECTRIC TRAMS AND LOCOMOTIVES.

Item \ Kind		Electric Trams	Electric Locos
Mileage run		*mile* 4,687,955.2	*mile* 87,722
Volume of current consumed		k.w.h. 5,362,284	k.w.h. 1,642,050
Expenses	Current	*yen* 243,058.167	*yen* 52,182.484
	Repair	98,159.837	25,452.194
	Others	49,131.397	32,568.036
	Total	390,349.401	100,202.714
Volume of current per mile run		k.w.h. 1.14	k.w.h. 18.7
Expenses per mile run		*yen* 8.33	*yen* 1.256

Table No. XXVIII.

DETAILS OF EXPENSES FOR OPERATION,

Item \ Jurisdiction	Head Office	Eastern Division	Central Division	Western Division	Kyushu Division	Hokkaido Division	Total
General Expenses							
	yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
Salaries, pensions, etc.	253,787.010	70,775.210	69,012.430	71,264.644	53,886.461	43,474.270	562,200.025
Office expenses	509,547.654	92,370.429	108,363.138	95,638.337	83.677.748	75,715.691	965,312.997
Subvensions to the International Railway Congress Association	300.000	—	—	—	—	—	300.000
Surveying	123,942.810	—	—	—	—	2,160.920	126,103.730
Institute expenses	25,813.976	3,935.709	6,931.289	—	3,805.930	2,409.058	47,284.347
Losses made good	1,784.710	—	—	4.388.385	—	—	1,784.710
Total	915,176.160	167,081.348	184,306.857	—	171,291.366	123,759.939	1,702,985.809
Maintenance of Way, etc.							
Salaries, pensions, etc.	23,429.920	135,914.670	132,911.490	151,976.102	112,122.316	63,590.170	619,944.668
Office expenses	16,429.587	276,245.266	314,124.822	323,796.565	122,884.879	163,191.149	1,216,672.268
Maintenance of way	—	1,873,406.111	2,056,202.526	1,921,779.884	1,010,598,421	1,035.314.353	7,897,301.295
Maintenance of electric lines	3,087.591	231,341.838	262,589.346	122,495.809	65.494.720	82,453.959	767,363.263
Maintenance of buildings	8,129.683	236,913.335	207,922.848	199,781.477	91,636.623	106,838.018	851,221.984
Total	51,076.781	2,753,721.220	2,973,751.032	2,719,829.837	1,402,736.959	1,451,387.649	11,352,503.478
Transportation Expenses							
Salaries, pensions, etc.	227,044.660	212,360.830	213,357.085	209,453.230	97,195.502	89.407.900	848,819.207
Office expenses	13,315.640	163,917.935	195,261.283	136,255.716	86,472.683	79,113.378	416,362.760
Running	544.610	2,775,129.598	3,805,261.014	2,780,719.790	1,119,907.311	983,689.307	11,465,251.630
Running electric trams	—	97,452,026	318,910.734	—	—	—	416,362.760
Maintenance of equipment	—	1,099.850	3,776.080	—	—	—	4,875.930
Total	40,904.910	3,248,860.389	4,532,790.116	3,126,428.736	1,303,575.496	1,152,210.585	13,404,770.232
Maintainance of Rolling Stock							
Salaries, pensions, etc.	18,002.920	17,006.630	10,652.080	16,480.700	14,676.494	16,247.110	93,065.934
Office expenses	22,130.306	28,474.195	24,590.146	24,097.199	20,684.128	19,360.185	139,336.159
Rolling stock	4,377.930	1,786,930.849	2,003,611.566	1,880,854.054	973,245.339	763,013.638	7,412,033.376
Total	44,511.156	1,832,411.674	2,038,853.792	1,921,431.953	1,008,605.961	798,620.933	7,644,435.469

Traffic Exponses							
Salaries, pensions, etc....	60,448.850	387,140.570	418,153.600	409,926.536	183,978.032	159,307.060	1,618,954.648
Office expenses	154,768.334	132,590.128	178,828.732	187,517.512	96,721.869	71,034.899	821,461.474
Station expeneses	12,071.050	1,891,809.150	2,420,810.063	2,613,832.637	1,192,201.441	839 858.303	8,970,582.644
Train expenses	190,259.800	609,328.263	735,786.761	569,682.249	360,012.681	226,278.631	2,691,348.385
Total	417,548.034	3,020,868.111	3,753,579.156	3,780,958.934	1,832,914.023	1,296,478.893	14,102,347.151
Hotels Expenses							
Salaries, pensions, etc.	—	—	—	694.830	—	—	694.830
Office expenses	—	—	—	33,025.240	—	—	33,025.240
Total	—	—	—	33,720.070	—	—	33,720.070
Shipping Expenses							
Salaries, pensions, etc.	7,496.580	24,401.550	—	61,355.580	—	—	93,253.710
Office expenses	22,240.766	5,841.766	—	20,156.526	—	427.081	48,666.139
Connection service	—	68,197.452	—	136,891.014	2,055.636	53,313.231	260,457.333
Running	—	248,034.516	—	776,235.703	—	7,242.910	1,031,513.129
Maintenance of floating equipment	—	37,663.430	—	116,794.167	—	6,053.563	160,511.160
Dues and fees	—	—	—	23,492.150	—	—	23,492.150
Total	29.737.346	384,138.714	—	1,134,925.140	2,055.686	67,036.785	1,617,893.621
Additional Expenses	256,374.563	431,369.832	389,284.239	426,189.603	311,200.935	246,324.084	2,060,743.256
Interest Charges for Loans							
Interest on capital liabilities	35,251,819.516	—	—	—	—	—	—
Interest on debentures	141,607.463	—	—	—	—	—	35,251,819.516
Charges for loans	179,176.266	—	—	—	—	—	179,176.266
Total	35,572,603.245	—	—	—	—	—	35,572,603.245
Refunds and Advances							
Refunds in pass. receipts	1,107,853.620	10,477.270	32,008.330	44,979.040	7,718.910	7,325.680	1,210,362.850
Refunds in goods receipts	527,434.780	145,233.530	13,894.690	31,254.820	210,164.420	19,594.050	947,576.290
Refunds in ground rents, etc.	—	329.950	311.740	2,471.550	548.570	1,769.980	5,431.790
Miscellaneous	—	24.520	33.680	54.340	581.040	21.710	715.290
Total	1,635,288.400	156,107.970	46,438.490	78,802.950	219,049.480	28,736.720	2,164,424.010
Advances in pass. receipts	—	1,753.070	479.040	779,230.070	51,328.910	—	832,791.090
Advances in goods receipts	—	—	—	9,629.650	—	—	9,629.650
Total	—	1,753.070	479.040	769,600.420	51,328.910	—	823,161,440
Grand total	1,635,288.400	157,861.040	46,917.530	858,033.020	270,378.390	28,736.720	2,997,215.100

Table No. XXIX.

MAINTENANCE WORKS.

Item	No. of places or buildings		
Earthworhs :—			
Cutting, ground-making, etc.	4,833	*cubic tsubo*	49,657
Retaining walls, pitching, sodding, etc....	863	*square tsubo*	57,355
Cribworks, retaining fences, etc.	274	*ken*	14,626
Bridges :—			
Bricklaying, wingwalls, etc.	40	*square tsubo*	25,156
Riveting	230		33,859
Painting	901	*squaretsubo*	59,248
Wood girders replaced by iron	2	*ft.*	192
Coaling piers and others	38	*ft.*	2,094
Culverts :—			
Bricklaying	59	*cubic tsubo*	30
Wingwalls, foundation protection works, etc....	62	*square tsubo*	457
Painting	738	*square tsubo*	2,699
Riveting	63		868
Wood girders replaced by iron	41	*ft.*	149
Underdrains :—			
Wood and vitrified pipes laid, drains, etc.	406	*ft.*	25,578
Siphons, bricklaying for ditches, etc.	19	*cubic tsubo*	1,297
Stone fences for ditches	50	*square tsubo*	423
Tunnels :—			
Side-walls, arches, pitching	13	*square tsubo*	1,520
Drainage		*ft.*	1,348

MAINTENANCE WORKS—*Continued.*

Item	No. of places or buildings		
Permanent way :—			
Rails renewed		*yard*	148,800
Fish-plates relaid			134,094
Bolts, dog-spikes, etc. renewed			1,499,324
Re-sleepering			1,627,328
Locknuts washers renewed			544,067
Tie-plates renewed			10,643
Re-ballasting		*cubic tsubo*	100,197
Tracks repairad add improved		*m.c.l.*	265,16.11
Points and crossings renewed and removed		*set*	2,429
Stations :—			
Re-roofing	726	*square tsubo*	22,799
Mortaring of roofs	608	*square tsubo*	10,672
Foundations and pillars renewed and strengthened	437		3,820
Ceilings renewed, planking and flooring	1,274	*square tsubo*	46,338
Buildings renewed, repaired and broken down	1,324	*square tsubo*	22,910
Painting	3,255	*square tsubo*	88,699
Platforms relocated and relaid	299	*ft.*	74,595
Wooden-board renewed	296	*ken*	2,034
Re-fencing	268	*ken*	7,311
Graveling	412	*cubic tsubo*	10,389
Miscellaneous Buildings :—			
Re-roofing	916	*square tsubo*	19,569
Mortoring	289	*square tsubo*	2,134
Ceilings renewed, walling and flooring	1,980	*square tsubo*	17,383
Foundations and pillars renewed and strengthened	759		6 280
Houses rebuilt and transplanted, painting	928	*square tsubo*	11,387
Painting	800	*square tsubo*	10,991
Snow Clearances :—			
Snow-ploughing, on tracks		*mile*	92,790
do. on buildings		*square tsubo*	223,394
Snow-screens and snow-fences formed	714	*ft.*	226,800
Fences and Boundaries :—			
Fences relocated and repaired	986	*ken*	32,766
Stone-boundaries buried			4,370

Table No. XXX.

MAINTENANCE WORKS INCIDENTAL TO NATURAL DAMAGES.

Item	No. of places or buildings		
Earthworks:—			
Cutting and ground-making	329	*cubic tsubo*	12,078
Retaining walls, shore protection, etc.	158	*square tsubo*	6,658
Bridges:—			
Bricklaying	3	*cubic tsubo*	18
Wingwalls and foundation protection works	36	*square tsubo*	1,585
Culverts:—			
Wingwalls and foundation protection works...	59	*square tsubo*	554
Underdrains:—			
Vitrified pipes and drains...	30	*ft.*	475
Permanent Way:—			
Additional ballasting...		*cubic tsubo*	2,210
Stations and Miscellaneous Buildings:—			
Reroofing and rebuilding	774	*square tsubo*	9,764
Ceilings renewed, planking and flooring	136	*square tsubo*	1,518

Table No. XXXI.

ADDITIONAL WORKS.

Item	No. of places		
Land:—			
Land purchased		*se. bu.*	62.8.16
Earthworks:—			
Cutting, ground-making, ditches constructed, etc.		*cubic tsubo*	33,110
Pavement, stone fences, pitching etc.		*square tsubo*	11,722
Bridges:—			
Bridges built or enlarged...	16	*ft.*	651
Pitching., random stones laid, etc.	4	*cubic tsubo*	118
Culverts:—			
Culverts built or enlarged	23	*ft.*	124
Underdrains:—			
Vitrified pipes laid	328	*ft.*	10,334
Permanent Way:—			
Tracks remodelled and built additionally	166	*m.c.l.*	24.04.22
Points, crossings, buffer stops provided	303	*set*	504
Stations:—			
Main buildings and accessory structures re-built and enlarged	1,604	*square tsubo*	19,497
Turntables and track-scales provided			9
Platforms and loading stages built newly or additionally	116	*ft.*	22,477
Interlockings installed		*set*	153
Miscellaneous Buildings:—			
New houses built, houses rebuilt and enlarged	302	*square tsubo*	4,035
Wooden-board provided additionally	137		
Tunnels:—			
Side-walls and reversed arches...	6	*ft.*	603
Drainage	2	*ft.*	1,964
Fences and boundaries:—			
Fences built newly and additionally	74		3,687

Table No.

IMPROVEMENT

Item	Eastern Division			Central Division	
	No. of places or buildings	Amount		No. of places or buildings	Amount
Land:—					
Land purchased	—	*se bu.*	17117.01	—	*se. bu.* 10606.25
Earthworks:—					
Cutting, ground-making, etc.	—	*cubic tsubo*	41,047	—	243,293
Stonewalls built newly and additionally or deviated	—	*square tsubo*	1,709	—	23,842
Side-ditches constructed newly and additionally or deviated	—	*ken*	977	—	203
Vitrified pipas laid	—	*ft.*	1,296	—	1,012
Bridges:—					
Bridges built additionally	—	*ft.*	1,803	16	20,892
Culverts:—					
Open and box culverts built or renewed	22	*ft.*	240	46	267
Underdrains:—					
Vitrified pipes laid or removed	56	*ft.*	3,882	87	5,300
Tunnels:—					
Tunnel boring	—	*cubic tsubo*	—	—	—
Side-walls and arches	—	*ft.*	—	—	—
Permanent Way:—					
Tracks laid newly and additionally or remodelled	63	*m.c.l.*	61.33.61	63	44.66.41
Points, crossings, slips, etc.	195	*set*	463	186	739
Ballasting	3	*cubic stubo*	3,123	15	23,488
Stations:—					
Buildings constructed, remodelled, enlarged and transplanted	111	*square tsubo*	3,986	214	5,638
Platforms and loading stages built newly and additionally or remodelled	30	*ft.*	9,696	55	25,480
Interlockings installed, transplanted and suppressed		*set.*	85	—	216
Miscellaneous Buildings:—					
Buildings constructed newly and additionally or removed	231	*square tsubo*	2,844	145	3,896
Wooden fences built newly and additionally or removed	92	*ken*	1,140	47	1,223
Fire-Prevention:—					
Re-roofing	146	*square tsubo*	2,533	—	—
Snow Clearance:—					
Plantation for snow-guarding purposes	—		600,077	—	—
Nurseries formed	—	*square tsubo*	118,933	—	—
Fences and Boundaries:—					
Fences newly and additionally made or relocated	26	*ken*	1,772	34	2,175

XXXII.

WORKS.

Western Division		Kyushu Division		Hokkaido Division		Street Line Construction Office		Total	
No. of places or buildings	Amount	No. of places or buildings	Amount	No. of places or buildings	Amount	No. of places or buildings	Amount	No. of places or buildings	Amount
—	*be. su.* 2379.20	—	*se. bu.* 996.03	—	*se. bu.* 845.12	—	*se. bu.* 32.03	—	*se. bu.* 31977.04
—	79,016	—	84,818	—	220,089	—	594	—	668,857
—	6,372	—	1,918	—	21,342	—	13	—	55,196
—	320	—	4,355	—	3,742	—	—	—	9,597
—	2,244	—	3,221	—	733	—	—	—	8,506
—	2,188	—	1,503	—	1,413	—	568	16	28,367
19	127	3	28	44	162	—	—	134	824
229	5,752	25	1,038	19	676	—	—	416	16,648
—	—	—	—	—	5,888	—	—	—	5,888
—	—	—	—	—	3,566	—	—	—	3,566
118	220.68.98	63	82.38.08	92	256.61.31		.02.55	399	666.30.94
162	714	220	220	31	263	1	1	795	2,400
47	5,987	93	8,311	16	14,536	1	10	175	55,455
163	3,616	62	3,116	48	1,202	1	705	599	18,308
91	38,709	3	794	8	4,565	—	—	187	79,244
—	238	—	190	—	23	—	—	—	752
60	2,434	36	4,106	46	865	2	42	520	14,187
5	11	6	303	3	55	2	53	155	2,785
—	—	—	—	—	—	—	—	146	2,533
—	—	—	—	—	334,486	—	—	—	934,563
—	—	—	—	—	418,762	—	—	—	537,695
46	2,427	23	2,392	8	482	—	—	143	9,248

Table No.

NUMBER OF STATIONS,

Item	Jurisdiction	Eastern Division	
		Year under review	Inc. or dec (△) against preceding year
No. of Lines		19	13
Mileage worked	(*mile*)	1,384.6	27.3
Right of Way	Permanent way ground	(*tsubo*) 10,081,660	147,484
	Station ground	(„) 2,778,749	147,184
	Works ground	(„) 104 800	—
	Offices and official residences	(„) 34.765	725
	Miscellaneous	(„) 536,608	185,529
Permanent Way	Main tracks	(*mile.*) 1,505.27	48.42
	Sidings, etc.	(„) 423.23	6.34
	Points and crossings	(*set*) 4,6 3	
Stations	Stations, 1st class	35	246
	Stations, 2nd class	10	—
	Stations, 3rd class	3	—
	Stations, 4th class	25	—
	Stations, 5th class	86	—
	Stations, 6th class	220	4
	Signal stations	—	—
	Junction stations	16	5
Bridges	Arch bridges (with aggregate length in feet)	2	—
	Girder bridges („)	83	—
		2 060	—
	Others („)	24	1
		22,150	307
		1,136	26
		90,463	1,251
Culverts	Arch and box culverts (with aggregate length in feet)	435	1
		2,576	4
	Open culvers („)	1,559	72
		10 421	363
Aqueduct over-bridges		19	—
Overhead road birdges		73	△ 9
Piers	(with aggregate length in feet)	7	1
		241	71
Coal-piers („)		6	—
		1,610	—
Tunnels („)		151	—
		117,000	—
Overhead drains		19	—
Drains		1,204	32
Earthenware pipes		16,488	338
Station Buildings	Main buildings (with aggregate area in *tsubo*)	368	12
		20,997	583
	Platform shelters („)	408	8
		19,801	1,420
	Loading platform shelteres and good sheds („)	450	14
		33.327	2,178
	Engine sheds („)	45	1
		10,640	122
	Other buildings („)	2,501	100
		20,756	318
	Platforms (with aggregate lenght in feet)	674	18
		331,314	4.930
	Loading platforms („)	392	7
		84,000	327
	Over-bridges	144	4
	Under-ground way	2	—
	Turntables	47	1
	Turntables for wagons	32	1
	Traversers	42	1
	Ash-pits	222	29
	Truck-scales	31	4
	Coal stages	110	5
	Water tanks and stand pipes	341	14
	Signals (*set*)	1,738	151
	Mechanical interlockings, 1st class („)	49	14
	Mechanical interlockings, 2nd class („)	935	113
	Point indicators („)	1,691	276

XXXIII.

TRAFFIC MILEAGE, ETC.

Eastern Division		Western Division		Kyushu Division		Hokkaido Division		Total	
Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year
12	6	26	9	19	15	12	6	88	40
1,130.8	49.0	1,235.0	15.1	613.2	16.7	853.4	67.6	5,217	172.9
10,152,990	322,785	9,231,386	1,277,425	4,257,391	141,064	21,542,786	2,163,034	55,269,123	4,051,792
2,264,843	126,026	▲ 19,251 2,573,535	388,302	1,989,397	66,860	4,338,444	219,330	▲ 19,251 13,944,968	948,205
131,451	—	105,137	8,741	48,127	20	251,953	10,701	641,468	19,462
15,339	—	04,858	332	51,663	3,746	68,500	—	235,125	4,803
47,268	590	113,917 △	26,234	177,539 △	2,903	1,508,829	8,571	2,384,156	164,373
1,141.27	39.42	1,407 38	18.01	673.02	11.40	909 57	73.64	5,931.71	191.29
405.71	41.08	428.18	31.35	285.38	11.67	276.49	20.36	1,817.87	111.20
4,632	383	59 4,713	3 310	46 2,821	14 90	2 2,638	363	142 19,437	× 17 1,392
3	—	9	—	5	—	6	—	33	—
12	—	7	—	13	2	6	—	41	2
17	1	16	—	11 △	2	20	3	89	1
29	—	55	—	24	2	24	2	218	4
251	21	293	10	163	2	123	6	1,050	34
—	—	3	—	—	—	—	—	3	—
19	2	17	5	9	1	2	—	63	13
1 △	1	1	—	3	—	—	—	6 △	2
107	1	84	—	96	—	7	—	377	1
2,068	12	4,053	—	2,374	345	117	—	10,672	357
37	—	27	—	32	1	18	—	138	2
26,184	—	32,128	—	14,012	2,161	5,759	—	101,233	2,468
1,355	74	1,999	32	1,071	11	834	115	6,395	258
103,172	7,276	163,845	2,436	58,600	3,671	45,109	4,479	461,189	19,113
640	21	712	3	699	9	294	31	2,780	65
3; 84	102	5,908 △	4	4,335	963	1,281	153	17,684	1,218
2,070	57	2,621	47	1,309	16	636	83	8,191	275
12,473	361	20,074	290	10,085	1,906	4,301	590	57,354	3,510
23	1	14	106	2	—	—	—	58	—
—	—	16	11	— △	2	12	—	349 △	9
99	2	1,110	335	59	1	—	—	—	—
9	4	—	—	3	—	6 △	2	44	14
502	185	—	—	204	18	1,701	805	3,758	1,414
—	—	—	—	14	—	14	—	34	—
—	—	—	—	11,546	1,222	18,447 △	1,823	31,603 △	601
201	8	214 △	1	96	—	39	5	701	12
237,424	10,104	175,863 △	211	84,167	—	38,656	3,682	653,110	13,575
61	9	63	—	16	—	—	—	159	9
1,691	71	1,991	23	1,356	37	332	15	4,166	173
11,777	285	22,370	327	8,555	259	2,252	139	61,442	1,348
312	9	393	6	201 △	7	180	11	1,454	31
19,155	1,155	24,339	1,029	11,173	62	10,774	497	86,438	3,326
430	38	512	22	143 △	10	175	16	1,668	89
22,060	1,931	26,487	1,911	7,865 △	509	4,045	184	80,258	4,940
331	18	504	33	146 △	8	194	5	1,628	62
21,731	805	36,800	1,979	6,065 △	380	10,987	182	108,913	4,764
46	3	47	3	21 △	3	35 △	1	194	3
9,710	1,794	8,320	52	3,523	341	6,141	371	38,334	2,680
2,333	180	2,396	102	1,225	68	1,293	118	9,748	578
20,349	919	20,783	962	8,430	147	8,502	320	78,820	2,666
562	20	737	24	311	5	339	22	2,623	89
264,657	9,621	260,392	16,999	130,006	414	111,523	8,119	1 097,892	40,083
317	15	438	16	177	5	178	12	1,492	55
63,404	3,607	81,769	4,304	28,052	201	28,927	3,164	286,152	10,666
119	4	85	19	24	—	28	4	400	31
12	3	1	—	3	—	—	—	18	3
41	4	45 △	1	20	—	46	5	199	9
33	—	22 △	1	11	1	—	—	98	1
46	4	35	2	51	—	3 △	2	177	5
112	7	81	9	54 △	1	81	10	550	54
46	2	26	1	4	—	10	2	117	9
80	4	80	16	37	—	85	9	392	34
237	33	218	26	80 △	2	109	6	985	77
1,605	165	1,451	147	810	82	754	80	6,359	625
45	8	28	4	15	—	16	5	153	31
827	202	1,032	282	549	81	237	6	3,550	684
305	59	1,102	243	500	147	437	41	4,635	766

NUMBER OF STATIONS, TRAFFIC MILEAGE, ETC.—*Continued.*

Item	Jurisdiction	Eastern Division		Central Division		Western Division		Kyushu Division		Hokkaido Division		Total	
		Year under review	Inc. or dec. (△) against preceding year	Year under review	Ind. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year	Year under review	Inc. or dec. (△) against preceding year
Official and other buildings	Official residences	587	51	670	19	255	26	371	△ 10	372	△ 3	2,255	83
	(with aggregate area in *tsubo*)	14,876	572	19,160	738	15,366	353	8,661	△ 455	12,349	302	70,412	1,810
	Official residences and dormitories	2,137	5	1,062	24	957	90	790	62	3,611	240	8,557	430
	(with aggregate area in *tsubo*)	48,523	886	33,934	970	28,954	1,977	16,945	1,093	58,454	3,360	86,810	8,292
Hotels (with aggregate area in *tsubo*)		—	—	—	—	3	—	—	—	—	—	3	—
		—	—	—	—	1,579	—	—	—	—	—	1,679	—
Watch-boxes, workmen's quarters and store-rooms		1,239	47	1,297	42	906	29	381	12	151	26	4,024	156
(with aggregate area in *tsubo*)		6,853	65	6,014	182	5,126	133	1,726	127	1,077	167	20,796	674
Spark-arresting sheds (with aggregate length in feet)		3	—	—	—	—	—	—	—	—	—	3	—
		4,728	—	—	—	—	—	—	—	—	—	4,728	—
Snow-sheds (,,)		86 △	4	22	3	—	—	—	—	40 △	1	148	2
		55,308 △	577	5,986	472	—	—	—	—	15,945	82	80.239 △	23
Snow-fences (,,)		6 △	19	—	—	—	—	—	—	3	—	9 △	19
		2,916 △	18,744	—	—	—	—	—	—	540	—	3,456 △	18,744
Snow-screens (,,)		40	—	—	—	—	—	—	—	—	—	40	—
		4,469	—	—	—	—	—	—	—	—	—	4,469	—
Plantations for guarding against snow drift		122	18	86	2	—	—	—	—	88	35	210	53
(with aggregate area in *cho. tan. se. bu.*)		160.8 2.21	64.5 9.25	2,175	△ 42	—	—	—	—	368.7.0.00	136.2.0.00	529 5.2.21	200.7.9.25
Fences and boundaries		2,088 △	122	4,178	39	—	—	3,004	85	—	—	—	—
(with aggregate length in *ken*)		156,821 △	2,338	111,618	2,454	172,689	3,942	96,093	7,526	43,039	412	580,365	16,672
Quaywalls		31	—	13	—	—	—	—	—	33	4	77	4
Works Buildings	Works and Power Rooms	63	1	67 △	1	87	4	61	6	51 △	1	329	9
	(with aggregate area in *tsubo*)	16,392	39	9,007 △	4486	18,788	465	8,897	451	12,258 △	137	65,342	332
	Accessory buildings	121	0	86	2	127 △	4	77 △	8	68	—	479 △	10
	(with aggregate area in *tsubo*)	4,874	153	2,175 △	42	1,839 △	543	1,336 △	307	1,065 △	90	11,289 △	829
	Traversers	10	—	7	—	13	—	5	5	6 △	1	41	4
	Turntables for wagons	39	8	9	—	13	—	6	6	6	1	73	15
Buildings for Electrtcity		25	—	34	—	4 △	1	4	2	8	1	75	2
(with aggregate area in *tsubo*)		1,066	—	2,076	—	187 △	1	206	114	243	48	3,778	161

N.B.—In the column of "Points and Crossings" the asterisk (*) indicates slips, diamond crossings, scissors crossings and double switches, while "Bridges and Culverts" includes flood-openings and road-bridges.
In the column of "Station ground," figures marked with (△) represenles leased land.

Table No. XXXIV.

BUILDING MATERIALS USED FOR TRACKS & BRIDGES.

	Item	Maintenance Works	Additional Works	Improvement Works	Total
		yard	*yard*	*yard*	*yard*
Nails	75 lb.	517	22	249,834	250,373
	70 lb.	197	108	11,245	11,550
	60 lb.	110,092	60,239	830,092	1,000,423
	56 lb.	22	—	—	22
	50 lb.	4,953	5,841	11,968	22,762
	45 lb.	4,080	11,046	24,288	39,414
	40 lb.	141	—	—	—
	Double-headed	127	3,421	1,244	4,806
	Total	120,004	80,678	1,128,228	1,328,910
Fish-plates	for 75 lb. rails	447	—	44,698	45,145
	for 70 lb.	172	26	3,650	3,848
	for 56 lb.	99	—	—	99
	for 50 lb.	42	30	—	72
	for 40 lb.	8	—	—	8
	for 35 lb.	82	—	—	82
	for 60 lb., angle	123,413	7,467	141,834	272,714
	for 50 lb., angle	515	650	2,110	3,275
	for 45 lb., angle	267	324	2,334	2,925
	for 60 lb., flat	13,702	6,126	19,913	39,741
	for 50 lb., flat	71,491	1,624	2,872	5,987
	for 45 lb., flat	944	1,170	2,347	4,461
	for tongue rails, special brand	284	66	448	798
	for rails of different weights	8,426	2,232	9,965	20,623
	Double-headed	1,209	160	—	1,369
	Total	1150,397	20,179	230,139	401,115
Fish-plate chairs		450	36	687	1,173

BUILDING MATERIALS FOR TRACKS & BRIDGES.—*Continued.*

Item		Maintenance Works	Additional Works	Improvement Works	Total
Bolts for Fish-plates	for 75 lb. rails	2,947	—	149,346	152,293
	for 70 lb. „	2,948	52	8,404	11,404
	for 60 lb. „	452,994	34,023	347,439	834,456
	for 56 lb. „	38	—	—	38
	for 50 lb. „	28,770	3,184	4,421	36,375
	for 45 lb. „	9,090	3,208	9,336	21,644
	for 40 lb. „	106	—	—	106
	for 35 lb. „	265	—	—	265
	for doubleheaded „	274	1,776	—	1,050
	Total	497,442	42,243	518,946	1,058,631
Locknut Chairs		664,109	19,060	424,451	1,107,620
Dog Spikes		1,464,683	226,957	3,439,978	5,135,618
Double-headed Spikes		12,969	1,078	648	14,695
Points	for 75 lb. rails	—	—	73	73
	for 70 lb. „	—	2	9	11
	for 60 lb. „	524	233	856	1,573
	for 56 lb. „	11	—	—	11
	for 50 lb. „	28	20	6	52
	for 45 lb. „	15	4	53	72
	Total	578	259	996	1,833
Crossings	for 75 lb. rails	3	—	71	74
	for 70 lb. „	—	2	9	11
	for 60 lb. „	685	225	791	1,701
	for 50 lb. „	15	18	6	39
	for 45 lb. „	67	4	62	133
	Total	770	249	938	1,957

BUILDING MATERIALS USED FOR TRACKS & BRIDGES.—*Continued.*

Item			Maintenance Works	Additional Works	Improvement Works	Total
Materials for Point and Crossings	Point rails	for 75 lb. rails	1	—	—	1
		for 70 lb. „	2	—	—	2
		for 60 lb. „	186	8	18	212
		for 50 lb. „	14	8	—	22
		for 45 lb. „	2	—	—	2
	Stock	for 60 lb. rails	155	10	16	181
		for 50 lb. „	32	8	—	40
		for 75 lb. „	—	—	9	9
	Guard rails	for 60 lb. rails	396	106	286	788
		for 50 lb. „	6	4	—	10
	Wing rails	for 60 lb. rails	10	—	12	22
	Nose rails	for 60 lb. rails	—	—	12	12
Fastenings			*set*	*set*	*sat*	*sat*
	Chocks		2,048	22	364	2,434
	Chock bolts		17,826	134	544	18,504
	Fang bolts		25,383	825	705	16,913
	Tie-plates		3,369	330	544	4,243
			set	*set*	*sat*	*sat*
Diamond Crossings 75 lb. rails			—	—	1	1
do., single slips			—	—	2	2
do., double slips			1	—	7	8
Diamond Crossings for 60 lb. rails			5	3	3	11
do., single slips			—	—	4	4
do., double slips			1	—	9	10
do., scissors crossings			—	—	1	1
do., tie-plates			67	—	—	67
Screw Spikes for Tie-Plates			—	230	—	230
Iron Shoes			1,668	2,954	211	4,833
Spikes for Iron Shoes			87	4,054	4,100	8,241
Covered Rails			8	—	2	10
Hook-Bolts			54,871	1,268	18,507	74,646
Wooden Rail-Braces			130,105	1,127	30,041	161,273
Iron Rail-Braces			125,407	694	38,997	165,098

BUILDING MATERIALS USED FOR TRACKS & BRIDGES.—*Continued.*

Item			Maintenance Works	Additional Works	Improvement Works	Total
Sleepers	Main tracks	Ordinary articles	1,054,058	5,013	254,696	1,773,817
		Creosoted articles	4,637	—	17,880	22,517
		Total	1,518,655	5,103	254,696	1,796,334
		Average No. per track mile	6,211	—	—	—
	Sidings	Ordinary articles	165,120	41,160	157,139	363,419
		Creosoted articles	1,296	512	13,135	14,943
		Total...	166,416	41,672	170,274	378,362
		Average No. per track mile	1,986	—	—	—
Sleepers for Points and Crossings			59,241	8,577	45,284	113,102
Average No. per set of Points and Crossings			19,489	—	—	—
Sleepers for Bridges			46,127	12,070	16,133	74,330
Average No. per 100 ft. of the aggregate length of all Bridges and Culverts			688,228	—	—	—
Abt System		Chairs	8,232	—	—	8,232
		Sleepers	560	—	—	560
		Fish-plates	1,945	—	—	1,945
		Bolts	14,461	—	—	14,461
		Rack rails	1,500	—	—	1,500
Rolled Bearers		2 ft. 6 in. clear span	—	—	4	4
		3 ft. clear span	26	6	27	59
		3 ft. 6 in. clear span	—	—	3	3
		3 ft. 9 in. ,, ,, ...	—	—	1	1
		4 ft. ,, ,, ...	10	2	37	49
		4 ft. 6 in. ,, ,, ...	4	—	—	4
		4 ft. 9 in. ,, ,, ...	—	—	4	4
		5 ft. ,, ,, ...	4	1	23	28
		5 ft. 3 in. ,, ,, ...	—	1	—	1
		5 ft. 6 in. ,, ,, ...	1	—	—	1
		6 ft. ,, ,, ...	9	4	46	59
		7 ft. ,, ,, ...	—	—	6	6
		7 ft. 6 in. ,, ,, ...	—	—	1	1

BUILDING MATERIALS USED FOR TRACKS & BRIDGES—*Continued.*

	Item	Maintenance Works	Additional Works	Improvement Works	Total
Rolled Bearers	8 ft. clear span	—	2	21	23
	9 ft. 9 in. „ „	1	—	—	1
	10 ft. „ „	2	—	12	14
	12 ft. „ „	—	—	32	32
	12 ft. 6 in. „ „	—	—	1	1
	14 ft. 1 in. „ „	—	1	—	1
	14 ft. 4 in. „ „	1	2	—	3
	15. ft. „ „	—	—	48	48
	18 ft. „ „	—	38	59	97
	21 ft. 1 in „ „	—	—	6	6
	Total	58	57	326	441
Box girders	4 ft. clear span	1	—	1	2
	5 ft. 6 in. „ „	—	—	5	5
	8 ft. „ „	1	—	2	3
	9 ft. „ „	—	—	1	1
	10 ft. „ „	—	—	1	1
	18 ft. „ „	—	—	2	2
	24 ft. „ „	—	—	2	2
	Total	2	—	14	16
Plate Girders	5 ft. 8¾ in. clear span	—	—	1	1
	8 ft. „ „	—	—	1	1
	10 ft. „ „	—	—	1	1
	15 ft. „ „	3	1	3	7
	18 ft. „ „	—	—	2	2
	20 ft. „ „	1	—	41	42
	30 ft. „ „	—	—	36	36
	40 ft. „ „	—	—	103	103
	50 ft. „ „	—	—	5	5
	60 ft. „ „	—	—	3	3
	70 ft. „ „	—	—	5	5
	Total	5	1	200	206

BUILDING MATERIALS USED FOR TRACKS & BRIDGES.—*Continued.*

Item		Maintenance Works	Additional Works	Improvement Works	Total
Trussed Girders	92 ft. clear span	—	—	2	2
	94 ft. 2 in. „ „	—	—	31	31
	100 ft. „ „	—	—	10	10
	150 ft. „ „	—	—	15	15
	Total	—	—	58	58
Girders made of Rails		1	8	21	30
Turntables	5 ft. clear span	—	—	1	1
	6 ft. „ „	1	—	4	5
	8 ft. „ „	—	—	1	1
	14 ft. „ „	4	—	—	5
	17 ft. „ „	—	—	2	2
	40 ft. „ „	—	—	1	1
	60 ft. „ „	—	—	5	5
	Total	5	1	13	19
Iron Over-bridges	over double track	—	2	20	22
	over triple track	—	2	7	9
	over 3 sets if double track	—	—	1	1
	over double and quadruple tracks connected ...	—	—	1	1
	over 11 track...	—	—	1	1
	Total	—	4	30	34

N.B.—Slips, diamond crossings, scissors crossings, double switches, etc. are counted at the rate of each set of them =2 sets of points or crossings, while the length of bridges and culverts does not include that of arched bridges and box culverts.

Table No. XXXV.

BALLASTING.

Jurisdiction / Item		Maintenance Works: Main tracks	Maintenance Works: Sidings	Maintenance Works: Average ballasting per mile of single tracks: Main tracks	Maintenance Works: Average ballasting per mile of single tracks: Siding	Additional Works	Improvement Works
		tsubo	*tsubo*	*tsubo*	*tsubo*	*tsubo*	*tsubo*
Eastern Division	North Eastern main line	7,237	1,096	for 650 m. 11.13	for 650 m. 5.68	600	5,592
	Joban line	2.936	190	„ 12.00	„ 2.50	262	2,511
	O-U line	4,679	578	„ 15.29	„ 7.71	105	773
	Gan-Etsu line	980	13	„ 17.50	„ 1.08	24	—
	Takasaki & Shin-Etsu lines ...	1,529	88	„ 20.39	„ 3.67	—	58
	Sobu line	1,593	65	„ 9.96	„ 1.51	65	—
	Total	18,954	2,230	„ 12.70	„ 4.80	1.056	8,934
Central Division	Tokaido main line	4,358	405	for 650 m. 6.60	for 650 m. 3 63	1,003	26,041
	Yamanote & Kansai line	248	—	„ 8.55	„ —	12	469
	Yokohama line	685	—	„ 24.46	„ —	25	—
	Central line	4,754	431	„ 14.11	„ 4.74	329	4,164
	Shin-Etsu line	2,250	154	„ 10.82	„ 2.41	133	5,981
	Hokuroku line	3,646	215	„ 15.99	„ 3.91	60	1,971
	Total	15,941	1,205	„ 10.70	„ 3.31	1,562	38,626
Western Division	Tokaido main line	5,852	99	for 650 m. 30.48	for 650 m. 1.18	434	2,380
	San-yo main line...	5.391	247	„ 12.28	„ 1.87	289	2,479
	San-in line	3,938	137	„ 14 37	„ 1.80	2	10
	Fukuchiyama & Bantan lines ...	1,626	92	„ 14.26	„ 4.18	102	174
	Kansai line	5,261	301	„ 15.80	„ 3.14	133	2,830
	Tokushima line	351	69	„ 16.71	„ 13.80	—	—
	Sanuki line	351	—	„ 12.54	„ —	—	—
	Kurayoshi light line	3	—	„ 1.50	„ —	—	—
	Total	22,773	945	„ 16.23	„ 2.28	960	7,873
Kyushu Division	Kagoshima main line	2,970	47	for 650 m. 9.90	for 650 m. .37	39	1,441
	Na asaki line	673	143	„ 4.67	„ 3.67	89	1,749
	Hoshu line	842	21	„ 7.59	„ .43	—	664
	Chiku-ho line	2,349	1,423	„ 23.73	„ 21.89	34	2,150
	Miyazaki line	—	—	„ —	„ —	—	—
	Total	6,834	1,634	„ 10.20	„ 5.77	162	6,004
Hokkaido Division	Hakodate line	9,310	891	for 650 m. 26.00	for 650 m. 6.00	150	7,714
	Muroran line...	3,018	207	„ 23.00	„ 3.00	505	4,509
	Rumoi line	—	—	„ —	„ —	—	—
	Kushiro line...	2,767	162	„ 14.00	„ 4.00	—	393
	Soya line	2,118	153	„ 26.00	„ 11.00	7	184
	Abashiri line	—	—	„ —	„ —	—	1.384
	Total	17,213	1,413	„ 18.00	„ 3.00	662	14,184
Street Line Construction Office	Street line	—	—	—	—	—	10
Grand total		81,715	7,227	for 650 m 13.70	for 650 m. 3.88	4,402	75,631

Table No.

CONSTRUCTION

Line	Hojo Line		Obama Line		Saeki Line		Tokushima Line		Tadotsu Line	
Land :—										
Land purchased during the year ...		*se.bu.* 419.14		*se.bu.* 123.11		*se.bu.* 6300.00		*se.bu.* 3819.14		*se.bu.* 1301.11
Item of Works	No. of places or buildings	Aggregated area or length	No. of places or buildings	Aggregated area or length	No. of places or buildings	Aggregated area or length	No. of places or buildings	Aggregated area or length	No. of places or buildings	Aggregated area or length
Earthworks :—										
Cutting, ground-making embankment, etc.	—	c.t. 28,118	—	—	—	156,231	—	128,114	—	31,839
Ditches, retaining walls, etc.... ...	—	s.t. 25	—	—	—	1,498	—	4,941	—	1,712
Retaining fences	—	ft. —	—	—	—	—	—	—	—	—
Earthen pipes, etc.	—	ft. —	—	—	—	—	—	—	—	—
Bridges :—										
Bridges (less than 100 ft. in length)	—	ft. —	—	—	5	89	2	42	—	—
Culverts :—										
Open & box culverts, etc.	—	—	—	—	12	—	17	345	—	—
Underdrains :—										
Earthen pipes, drains, etc.	69	ft. 2,516	—	—	340	15 272	89	2,204	—	11,968
Permanent Ways :—										
Tracks laid	—	m.c.l. —	—	—	—	—	—	2.40.00	—	—
Points & crossings	—	set. —	—	—	—	—	—	—	—	—
Ballasting	—	c.t. —	—	—	—	—	—	250	—	—
Indicators	—	—	—	—	—	—	—	—	—	—
Stations :—										
Main buildings & accessories ...	—	s.t. —	—	—	—	—	—	—	—	—
Platforms, loading stages, etc. ...	—	ft. —	—	—	6	3,074	—	—	—	—
Well-sinking, feeders & ash-pits ...	—	—	—	—	—	—	—	—	—	—
Signals & interlockings	—	—	—	—	—	—	—	—	—	—
Coal-stages & traversers...	—	—	—	—	—	—	—	—	—	—
Lamp-posts & indicators	—	—	—	—	—	—	—	—	—	—
Miscellaneous buildings :—										
Official residence, quarters, etc. ...	—	s.t. —	4	66	106	1,665	—	—	6	108
Well-sinking, feeders & ash-pits ...	—	—	—	—	—	—	—	—	—	—
Wooden-walls & fences	—	—	—	—	—	—	—	—	—	—
Telegraph & Telephone Equipment		*ri.cho.ken.*								
Wiring	—	—	—	—	—	10.14,50	—	18.31.04	—	6.14.49
Telegraph & Telephone apparatus... installed	—	—	—	—	—	—	—	—	—	7
Fences & Boundaries :—										
Boundaries	—	m.c.l. —	—	9.43.77	—	24.05.80	—	—	—	—
Fences	—	ft. —	—	—	—	—	—	—	—	—
Snow-Prevention :—										
Snow-sheds	—	ft. —	—	—	—	—	—	—	—	—

N.B.—c.t.=cubic *tsubo*; s.t.=square *tsubo*.

XXXVI.

WORKS.

Sendai Line		Miyagi Line		Abashiri Line		Soya Line		Shimofurano Line		Nemuro Line		Total	
se.bu. 3577.22		*se.bu.* 3235.27		*se.bu.* 5639.26		—		*se.bu.* 10106.11		*se.bn.* 3222.02		*se.bu.* 68635.20	
No. of places or buildings	Aggregated area or length	No. of places or buildings	Aggregated area or length	No. of places or buildings	Aggregated area or length	No. of places or buildings	Aggregated area or length	No. of places or buildings	Aggregated area or length	No. of places or buildings	Aggregated area or length	No. of places or buildings	Aggregated area or length
—	212,936	—	211,073	—	5,662	—	27,325	—	120,470	—	—	—	1,762,311
—	13,543	—	2,091	—	378	—	8,063	—	5,144	—	—	—	62,900
—	2,448	—	7,296	—	13,223	—	12,330	—	9,795	—	—	—	58,763
—	—	—	—	—	—	—	—	—	—	—	—	—	680
16	352	22	588	2	48	9	256	5	136	—	—	151	4,514
20	—	45	—	—	—	2	—	17	13	—	—	278	358
244	9,633	112	4,122	4	88	24	990	94	4,529	—	—	2,057	116,849
—	3.56.00	—	40.25.12	—	3.23.35	—	12.08 28	—	23.00.00	—	—	—	187,41.52
—	28	—	—	—	48	—	52	—	11	—	—	—	302
—	893	—	12,079	—	6,676	—	4,045	—	4,101	—	—	—	58,188
—	—	—	—	—	622	—	309	—	—	—	—	—	1,225
15	303	18	281	28	348	17	369	33	857	—	—	271	5,932
14	—	10	—	3	—	4	864	12	—	—	—	63	20,342
—	—	1	—	10	—	6	—	11	—	—	—	46	—
1	—	45	—	16	—	11	—	—	—	—	—	125	—
—	—	—	—	3	—	2	—	7	—	—	—	23	—
—	—	—	—	160	—	4	—	—	—	—	—	188	—
25	345	75	1,021	36	572	68	1,194	28	755	10	246	739	12,373
2	—	6	—	10	—	16	—	24	—	1	—	91	—
—	—	—	219	—	501	—	42	—	690	—	6	—	1,458
—	1.08.24	—	39.17.26	—	40.28.08	—	13.21.51	—	20.21.10	—	—	—	242.35.35
—	2	—	19	—	16	—	15	—	—	—	—	—	107
—	—	—	1.40.00	—	—	—	—	—	—	—	—	—	66.03.49
—	—	—	—	—	4 042	—	360	—	—	—	—	—	26,054
—	—	—	—	—	—	—	—	—	—	—	—	2	1,110

Line	Daisha Line		Hamada Line		Yamaguchi Line		Tsuwano Line	
Land :—								
Land purchased during the year	*se.bu.* 284.21		*se.bu.* 5059.07		*se.bu.* 1485.12		*se.bu.* 1980.02	
Item of works	No. of places or buildings	Aggregated area or length	No. of places or buildings	Aggregated area or length	No. of places or buildings	Aggregated area or length	No. of places or buildings	Aggregated area or length
Earthworks :—								
Cutting, ground-making, embankment, etc.	—	c.t. 5,370	—	201.998	—	30,455	—	4,650
Ditches, retaining walls, etc....	—	s.t. 206	—	2,008	—	969	—	—
Retaining fences	—	ft. 69	—	—	—	—	—	—
Earthen pipes, etc.	—	ft. —	—	—	—	—	—	—
Bridges :—								
Bridges (less than 100 ft. in length)	3	ft. 237	—	—	16	464	—	—
Culverts :—								
Open & box culverts, etc.	—	—	—	—	29	—	—	—
Underdrains :—								
Earthen pipes, drains, etc.	47	ft. 2,002	182	7,044	278	7,287	2	136
Permanent Way :—								
Tracks laid	—	m.c.l. 6.0.30	—	—	—	11.06.35	—	—
Points & crossings	—	set. 19	—	—	—	32	—	—
Ballasting	—	c.t. 2,420	—	—	—	3,141	—	—
Indicators	—	—	—	—	—	294	—	—
Stations :—								
Main buildings & accessories...	12	s.t. 217	—	—	9	320	—	—
Platforms, loading stages, etc.	5	ft. 2,487	—	—	—	3,333	—	—
Well-Sinking, feeders & ash-pits	2	—	—	—	6	—	—	—
Signals & interlockings	11	—	—	—	23	—	—	—
Coal-stages & traversers...	—	—	—	—	3	—	—	—
Lamp-posts & indicators	—	—	—	—	—	—	—	—
Miscellaneous Buildings :—								
Official residence, quarters, etc.	7	s.t. 137	49	1,395	21	341	14	223
Well-Sinking, feeders & ash-pits	—	—	—	—	6	—	5	—
Wooden-walls & fences	—	—	—	—	—	—	—	—
Telegraph & Telephone Equipment :—								
Wiring	—	*ri.cho.ken.* 4.11.40	—	31.26.11	—	.03.07	—	3.09.03
Telegraph & telephone apparatus installed...	—	—	—	—	—	2	—	2
Fences & Boundaries :—								
Boundaries	—	m.c.l. 4.46.00	—	13.27.92	—	—	—	10.00.00
Fences	—	ft. —	—	—	—	339	—	—
Snow-Prevetnion :—								
Snow-sheds	—	ft. —	—	—	—	—	—	—

WORKS.—*Continued.*

Toyama Line		Gan-Etsu Line		Shibata Line		Murakami Line		Taira Line		Shinjo Line		Boso Line	
	se.bu. 602.29		*se.bu.* 464.09		*se.bu.* 293.26		*se.bu.* 4210.14		*se.bu.* 6744.20		*se.bu.* 7606.16		*se.bu.* 2157.26
No. of places or buildings	Aggregated area or length	No. of places or buildings	Aggregated area or length	No. of places or buildings	Aggregated area or length	No. of places or buildings	Aggregated area or length	No. of places or buildings	Aggregated area or length	No. of places or buildings	Aggregated area or length	No. of places or buildings	Aggregated area or length
—	11,819	—	55,319	—	4,550	—	32,047	—	244,368	—	167,279	—	82,688
—	3,596	—	5,899	—	140	—	—	—	3,296	—	5,472	—	3,989
—	—	—	372	—	—	—	—	—	168	—	13,056	—	—
—	—	—	618	—	—	—	—	—	62	—	—	—	—
8	238	14	625	3	36	—	—	—	—	27	869	13	534
11	—	13	—	1	—	—	—	5	—	88	—	18	—
51	2,020	44	1,456	1	88	1	8,820	4	16,182	423	18,517	48	1,972
—	10.10.46	—	9.20.38	—	16.46.0	—	—	—	—	—	26.12.16	—	23.26.12
—	22	—	—	—	—	—	—	—	—	—	32	—	58
—	4,205	—	1,719	—	5,886	—	—	—	—	—	7,076	—	5,697
—	—	—	—	—	—	—	—	—	—	—	—	—	—
49	958	15	299	30	873	—	—	3	350	27	403	15	354
—	—	8	—	—	—	—	—	1	780	—	9,804	—	—
5	—	1	—	4	—	—	—	—	—	—	—	—	—
18	—	—	—	—	—	—	—	—	—	—	—	—	—
4	—	2	—	2	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	24	—	—	—
22	392	26	218	50	635	13	215	104	1,400	61	1,234	14	211
—	—	1	—	7	—	—	—	13	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	8.31.35	—	14.19.23	—	16.35.10	—	11.29.44
—	—	—	—	—	3	—	7	—	10	—	12	—	7
—	3.00.00	—	—	—	—	—	—	—	—	—	—	—	—
—	1,305	—	1,092	—	8,230	—	—	—	—	—	2,952	—	7,734
2	1,110	—	—	—	—	—	—	—	—	—	—	—	—

CONSTRUCTION WORKS—*Continued.*

LIGHT RAILWAYS.

Land :—			
Land purchased during year under review			*se.bu.* 15003.24
Item of Works	**No. of places or buildings**	**Area or length**	
Earthworks :—			
Cutting, embankment, ground-making	—	c.t.	152,584
Ditches, stone walls, etc.	—	s.t.	909
Fences	—	ft.	22,331
Vitrified pipes, box drains, etc.	—	ft.	2,509
Bridges :—			
Bridges (less than 100 ft. in length)	41	ft.	1,030
Culverts :—			
Culverts	90	ft.	82
Underdrains :—			
Vitrified pipes, drains, etc.	675	ft.	19,036
Permanent Way :—			
Tracks laid newly & additionally or relocated	—	m.c.l.	49.56.86
Points, crossings, buffer stops, etc.	—	set	129
Ballasting	—	c.t.	10,405
Planking	—		66
Indicators	—		307
Stations :—			
Main building & accessories	66	s.t.	963
Platforms, loading stages & ash-pits	39	ft.	8,154
Wells & feeders	25		—
Points,cossings & buffer stops	—	set	32
Fences & wooden-walls	5	ft.	991
Coal stages & traversers	11		—
Indicators	47		—
Miscellaneous Buildings :—			
Official buildings, residence & accessories	152	s.t.	2,073
Wells, feeders, etc.	15		—
Fences & wooden walls	8	ft.	504
Telegraph & Telephone Equipment :—			
Wiring	—	*ri.cho.ken.*	45.03.48
Telegraph & telephone apparatus	—		14
Fences & Boundaries :—			
Fencing	38	ft.	10,062
Boundary indicators	—	m.c.l.	40.25.09

N.B.—s.t. = square *tsubo*; c.t. = cubic *tsubo*.

Table No. XXXVII.

BRIDGE WORKS.

Line	No.	Length
Gan-Etsu Line	30	ft. 11,304
Shibata Line	2	4,638
Murakami Line	3	2,990
Taira Line	15	4,000
Saeki Line	8	3,849
Miyachi Line	2	636
Hamada Line	7	1,573
Kurayoshi Line	1	830
Toyama Line	2	1,626
Boso Line	1	463
Hojo Line	3	1,422
Nagai Line	2	1,410
Shinjo Line	12	9,328
Miyazaki Line	12	3,777
Sendai Line	7	1,551
Tokushima Line	5	1,216
Tadotsu Line	3	773
Hokkaido Lines	36	7,040
Moka Line	3	394

N.B.—Bridges less than 1000 feet in length are excluded.

Table No. XXXVIII.

TUNNEL WORKS.

Line	No.	Length	Pilot Tunnels	Brick-Lining	Side-Wall Lining
Gan-Etsu Line	32	ft. 34,674	3,394	6,282	5,750
Taira Line	19	11,787	8,375	329	395
Saeki Line	23	26 847	12,756	165	138
Hamada Line	10	10,900	6,942	2,499	893
Boso Line	9	4,881	3,679	4,881	4,881
Hojo Line	8	4,023	65	—	—
Shinjo Line	17	22,488	3,883	7,538	8,631
Miyazaki Line	5	1,939	899	166	149
Sendai Line	5	7,785	272	1,079	1,073
Tsuwano Line	3	8,006	496	—	—
Hokkaido Line	6	4,973	2,440	836	836

Table No. XXXIX.

PROGRESS OF THE DIFFERENT LINES OPEN TO TRAFFIC.

Item / Line	opened up to preceding year		opened during year under review	
	Section	Mileage	Section	Mileage
		m.c.		m.c.
O-u Line	Fukushima-Aomori	305.12	—	—
Central Line	Hachioji-Nagoya	225.04	—	—
San-in Line	Sakai-Kasumi / Yonago-Izumoimaichi	196.27	—	—
Hokuroku Line	Yatsushiro-Kagoshima	122.45	—	—
Kagoshima Line	Tsuruga-Toyama	96.26	—	—
Maizuru Line	Fukuchiyama-Shinmaizuru / Maizuru Shore Line / Maizuru Naval Yard Line / Ayabe-Sonobe	52.20	—	—
Shinonoi Line	Shiojiri-Shinonoi	41.47	—	—
Kure Line	Kaitaichi-Kure	12.46	—	—
Toyama Line	Toyama-Tamari	32.52	Tomari-Omi	14.16
	Naoetsu-Natachi	9.77	Natachi-Itoigawa	15.72
Oita Line	Yanagigaura-Oita	39.67	—	—
Gan-Etsu Line	Niitsu-Maoroshi / Kitakata-Yamato	17.32	—	—
Uno Line	Okayama-Uno	20.37	—	—
Toba Line	Yamada-Toda	8.68	—	—
Sendai Line	—	—	—	—
Miyazaki Line	—	—	Yoshimatsu-Kobayashimachi	16.74
Shinjo Line	—	—	—	—
Boso Line	Naruto-Togane	4.71	Anegasaki-Kisarazu	10.05
	Soga-Anegasaki	9.55		
Shibata Line	—	—	Niitsu-Shibata	16.46
Taira Line	—	—	—	—
Hamada Line	—	—	—	—
Daisha Line	—	—	Izumoimaichi-Daisha	4.66
Yamaguchi Line	—	—	Kogori-Yamaguchi	8.20
Tokushima Line	—	—	—	—
Saeki Line	—	—	—	—
Tadotsu Line	—	—	—	—
Tsuwamo Line	—	—	—	—
Hagi Line	—	—	—	—
Masuda Line	—	—	—	—

PROGRESS OF THE DIFFERENT LINES OPEN TO TRAFFIC.—*Continued.*

Item / Line	opened up to preceding year		opened during year under review	
	Section	Mileage	Section	Mileage
		.m.c		m.c.
Obama Line	—	—	—	—
Hojo Line	—	—	—	—
Murakami Line	—	—	—	—
Soya Line	Asahigawa-Onnenai	69.76	{Onnenai / Otoineppu}	10.48
{Tokachi / Kushiro} Line	Asahigawa-Kushiro	192.15	—	—
Nemuro Line	—	—	—	—
Rumoi Line	Fukagawa-Rumoi	31.09	—	—
Abashiri Line	Ikeda-Nokkeushi	87.28	Nokkeushi-Abashiri	33.04
Shimofurano Line	—	—	—	—
Total	—	1,576.14	—	130.31
Grand total	—		—	1,706.45

LIGHT RAILWAYS.

Item / Line	opened up to preceding year		opened during year under review		
	Section	Mileage	Section	Mileage	m.c.
Yubetsu Line	—	—	—	Nokkeusni-Rubeshibe	14.28
Iwanai Line	—	—	—	Ozawa-Iwanai	9.22
Moka Line	—	—	—	Shimodate-Moka	10.31
Kurayoshi Line	—	—	—	Agei-Kurayoshi	2.64
Kamiiso Line	—	—	—	—	—
Manji Line	—	—	—	—	—
Funakawa Line	—	—	—	—	—
Nagai Line	—	—	—	—	—
Miyachi Line	—	—	—	—	—
Inukai Line	—	—	—	—	—
Kuroishi Line	—	—	—	Kawabe-Kuroishi	4.14
Total Line	—	—	—	—	40.79

Table No. XL.

ACCIDENTS TO TRAINS AND TRACKS.

Description \ Jurisdiction	Eastean Division	Central Division	Western Division	Kyushu Division	Hokkaido Division	Total
Derailed — No. of accidents	59	71	81	37	89	335
Derailed — No. of locomotives	43	31	38	17	45	174
Derailed — No. of carriages	11	17	14	3	12	57
Derailed — No. of wagons	46	74	67	32	94	313
Collisions — locomotives	6	6	9	4	4	29
Collisions — passenger trains	2	5	9	2	12	30
Collisions — goods trains	7	9	8	2	17	43
Collisions — cars and wagons	2	11	33	—	16	62
Overturned — No. of accidents	11	22	10	17	10	70
Overturned — No. of locomotives	1	4	3	2	3	13
Overturned — No. of carriages	3	—	1	—	2	6
Overturned — No. of wagons	24	57	25	38	16	160
Trains detached	12	9	4	9	61	95
Trains mi-guided	3	14	11	5	12	45
Caused by defects in vehicles — locomotives	235	209	168	45	222	879
Caused by defects in vehicles — carriages	5	15	14	11	17	2
Caused by defects in vehicles — wagons	11	59	23	34	171	298
Caused by defects in vehicles — electric trai ns	5	7	—	—	—	12
Tracks obstructed — natural causes	7	43	21	13	56	140
Tracks obstructed — artificial causes	3	11	11	—	2	27
Trains obstructed — natural causes	2	8	2	—	—	12
Trains obstructed — arfificial causes	86	5	21	44	14	170
Cars overrunning	5	1	7	2	6	21
Fires	97	12	10	3	28	150
Others	4	5	25	2	1	37
Total	562	522	467	230	736	2,517

Table No. XLI.

ACCIDENTS TO SHIPS.

Description \ Jurisdiction	Shimonoseki-Fusan	Shimonoseki-Moji	Uno-Takamatsu	Miyajima-Itsukushima	Maizuru-Obama	Miizuru-Miyajima	Aomori-Hakodate	Total
Sinking	1	—	—	—	—	—	—	1
Collisions	1	—	—	—	—	—	—	1
Running aground	—	—	1	—	—	—	2	3
Touching	4	1	—	—	—	—	1	7
Delayed or stopped above two hours	2	—	—	—	—	—	12	17
Others	19	2	3	—	—	—	6	33
Total	27	3	4	—	—	—	21	62

Table No. XLII.

CASUALTIES CAUSED BY ACCIDENTS, NEGLIGENCE AND SUICIDE.

Description		Jurisdiction	Eastern Division	Central Division	Western Division	Kyushu Division	Hokkaido Division	Total
Passengers	Accidents	Deaths	—	5	—	—	—	5
		Injuries	25	68	27	5	20	145
	Negligence	Deaths	4	5	3	—	—	12
		Injuries	16	48	35	4	5	110
	Suicide	Death	1	2	1	1	—	5
		Injuries	1	—	—	—	—	1
	Causes unknown	Deaths	3	—	2	—	1	6
		Injuries	—	1	5	—	—	6
	Total	Deaths	8	12	6	1	1	28
		Injuries	42	117	67	9	25	262
Railway Employees	Accidents	Deaths	3	4	1	1	4	13
		Injuries	40	8	7	17	37	109
	Negligence	Death	17	25	24	22	9	97
		Injuries	200	407	275	140	243	1,265
	Suicide	Deaths	1	—	—	—	—	1
		Injuries	—	—	—	—	—	—
	Causes unknown	Deaths	2	—	—	3	—	5
		Injuries	—	1	—	1	—	2
	Total	Deaths	23	29	25	26	13	116
		Injuries	240	416	282	158	280	1,376
Others	Accidents	Deaths	—	—	—	—	1	1
		Injuries	3	—	—	4	1	8
	Negligence	Deaths	101	88	108	61	38	396
		Injuries	116	104	119	50	82	471
	Suicide	Deaths	404	462	317	92	23	1,298
		Injuries	37	43	22	4	3	109
	Causes unknown	Deaths	6	1	19	4	—	30
		Injuries	1	—	3	2	—	6
	Total	Deaths	511	551	444	157	62	1,725
		Injuries	157	147	144	60	86	594
Grand total		Deaths	452	592	475	184	76	1,869
		Injuries	439	680	493	227	391	2,230

Table No. XLIII.

VIOLATIONS OF RAILWAY RULES.

Description \ Jurisdiction	Eastern Division	Central Division	Western Division	Kyushu Division	Hokkaido Division	Total
Placing obstacles on tracks	20	19	26	24	6	95
Throwing stones at trains	71	44	17	46	13	191
Firing at trains	—	—	1	1	—	2
Opening doors of trains in motion	1	8	9	3	—	21
Tampering with alarm bells in cars	—	1	—	—	—	1
Getting on or jumping down trains in motion	6	7	4	37	10	64
Entering railway compounds or grounds without permission	—	31	80	87	—	198
Damaging signal or signal lamps	—	2	—	—	—	2
Selling in cars	28	—	63	—	—	91
Behaving violently in trains or in railway grounds	1	—	4	—	2	7
Misrepresenting articles consigned for delivery	—	—	—	—	2	2
Firing in railway grounds	—	—	1	—	—	1
Damaging indicators and placards in railway grounds	5	—	7	1	—	13
Travelling aboard with explosives	—	—	—	—	2	2
Total	132	112	212	199	35	690

Table No. XLIV.

CASUALTIES OF RAILWAY OFFICIALS IN DISCHARGE OF DUTIES.

Description \ Jurisdiction	Head Office		Easten Division		Central Division		Western Division		Kyushu Division		Hokkaido Division		Construction Offices		Grand total		Inc. or dec. (△) against preceding year	
	deaths	injuries	deaths	injuries	deaths	injuries	deaths	injuries	deaths	injuries	deaths	injuries	deaths	injuries	deaths	injuries	deaths	injuries
Officials of higher grade :—																		
Accidents	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Negligence	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	△ 2
Causes unknown	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	△ 2
Officials of lower grade :—																		
Accidents	—	—	—	4	—	1	—	5	—	—	—	4	—	—	—	14	—	△ 1
Negligence	—	—	—	4	—	18	—	5	—	4	—	3	—	2	1	36	△ 1	9
Causes unknown	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	8	—	19	1	10	—	4	—	7	—	2	1	50	△ 1	8
Employees :—																		
Accidents	—	—	1	45	2	40	3	103	—	7	9	30	—	1	15	226	5	9
Negligence	—	—	4	110	9	241	3	80	2	59	8	64	—	—	21	554	4	△ 41
Causes unknown	—	—	—	1	—	3	—	—	—	—	—	—	—	—	—	4	—	△ 1
Total	—	—	5	156	11	284	6	083	2	66	12	94	—	1	36	784	9	△ 33
Laborers :—																		
Accidents	—	—	4	1,143	8	1,144	10	3,855	1	10	8	325	2	10	33	6,487	7	1,151
Negligence	—	7	26	3,012	45	3,079	52	1,536	21	1,406	12	672	2	27	158	9,739	△ 35	△ 2,329
Causes unknown	—	—	—	13	—	172	—	—	3	1	1	—	—	—	4	186	2	46
Total	—	7	30	4,168	53	4,395	62	5,391	25	1,417	21	997	4	37	195	16,412	△ 26	△ 1,132
Grand total	—	8	35	4,332	64	4,698	69	5,584	27	1,187	33	1,098	4	40	232	17,247	△ 18	△ 1,159

Table No. XLV.

OFFICIALS AND EMPLOYEES

Designation / Item	Year under review: Number	Year under review: Monthly sum of salary or wages	Inc. or dec (△) against preceding year: Number	Inc. or dec (△) against preceding year: Monthly sum of saraly or wages
		yen		*yen*
President	1	625.00	—	625.00
Vice-president	1	416.67	—	—
Engineer-in-chief	1	416.67	—	—
Directors	6	1,849.98	—	△ .01
Engineers (of *chokunin* rank)	12	4,049.98	—	74.99
Total	21	7,358.30	—	699.98
Councillors	58	9,491.68	—	225.01
President's private secretary	1	208.33	—	41.66
Secretaries	64	7,808.36	6	737.52
Assistant secretaries	44	4,716.65	1	299.99
Engineers	349	51,579.19	7	3,845.75
Interpreter (of *sonin* rank)	1	100.00	1	100.00
Total	517	73,904.21	15	5,249.93
Grand total	538	81,262.51	15	5,949.91
Average salary per capita		151.05		6.77
Clerks — *male*	4,743	209,815.00	187	12,304.00
Clerks — *female*	6	145.00	—	400
Assistant engineers	2,290	121,770.67	134	8,896.67
Total — *male*	7,033	331,585.67	321	21,200.67
Total — *female*	6	145.00	—	4.00
Total — Total	7,039	331,730.67	321	21,204.67
Average salary per capita		47.13		.91
Assistant clerks — *male*	15,934	292,396.01	1,761	38,834.35
Assistant clerks — *female*	722	6,580.26	114	1,126.48
Assistant engineers of lower grade — *male*	11,087	243,686.48	63	1,303.90
Assistant engineers of lower grade — *female*	2	53.42	1	33.42
Total — *male*	27,021	536,082.49	1,824	40,138.25
Total — *female*	724	6,633.68	115	1,159.90
Total — Total	27,745	542,716.17	1,939	41,298.15
Average salary per capita		19.56		.13
Servants	915	10,722.49	27	709.40
Watchmen	4	67.83	△ 1	△ 18.00
Guards	153	2,475.57	△ 1	78.41
Lithographers	21	418.04	△ 11	△ 206.63
Printers	122	2,081.80	35	688.05
do., female	16	117.10	6	55.35
do., apprentice	5	43.50	1	15.83
Book-binders	41	773.44	3	65.01
do. female	18	152.69	4	37.44
Foremen labourers, of regular employ	7	117.11	7	117.11
Labourers, of regular employ	2,202	32,412.88	265	4,286.14
do., females	96	590.71	23	190.21
Navvies	24	442.50	2	34.33
Workmen, testing office	23	392.31	12	216.81
Guards, Warehouse	182	3,666.61	18	509.86
Night watchmen	46	627.29	△ 4	△ 38.72
Office boys	456	3,255.99	12	220.99
Office girl	1	7.00	1	7.00
Toolkeepers	42	684.98	—	29.14

OFFICIALS AND EMPLOYEES.—*Continued.*

Designation / Item	Year under review		Inc. or dec. (△) against preceding year	
	Number	Monthly sum of salary or wages	Number	Monthly sum of salary or wages
		yen		*yen*
Watchmen, bridge	92	1,196.08	△ 6	△ 52.25
do., femal	25	127.45	△ 2	3.12
Watchmen, tunnel	181	2,449.46	1	219.55
do., female	39	176.41	2	12.32
Watchmen, level crossing	1,082	13,363.74	90	1,329.65
do., female	1,861	8,975.05	48	848.64
Labourers, surveying	393	5,649.54	56	1,056.54
Foremen, trackgang	404	9,728.57	10	488.90
Trackmen	12,039	183,722.51	384	13,332.77
Foremen, construction gang	83	2,430.05	7	276.87
Labourers, construction	1,036	20,108.49	29	868.72
do, femal	2	12.47	2	12.47
Carpenters, of regular employ	529	11,640.60	43	1,187.51
Watchmen, general articles	310	5,074.97	22	489.97
Errand boys	4	42.89	—	△ 1.12
Miners, of regular employ	12	352.23	—	13.47
Signalmen	301	4,733.46	18	377.29
Greasers	475	5,859.54	40	530.13
Coal-and-pumping men	2,268	32,467.15	93	2,560 89
Engine cleaners	2,688	27,480.46	303	3,296.54
Car inspectors	1,025	23,219.49	△ 179	△ 4,425.93
Car inspectors' assistants	399	6,032.23	17	353.74
Enginemen, feeder service	113	2,240.19	20	471.28
Firemen, feeder service	70	1,191.42	△ 2	8.01
Lamp tenders	392	5,406.57	△ 41	△ 269.85
Cleaners	1,044	11,902.97	105	1,700.71
do., female	249	2,085.97	28	331.05
Engiennen, workshop	13	364.08	△ 3	△ 41.67
Firemen, workshop	77	1,548.52	6	133.84
Toolkeepers, workshop	164	2,953.15	28	550.82
Hydraulic crane operators' assistants	6	114.98	△ 1	△ 14.60
Firemen, hydraulic crane	2	23.42	—	△ 9.41
do., steam crane	2	55.36	△ 2	△ 32 89
Coaling machine operators' assistants	12	203.79	4	69 04
Firemen, coaling machine	12	184.63	4	64.80
Labourers, of regular employ, coaling machine	41	516.48	12	169.15
Firemen, apprentice	703	8,212.58	166	2,069.32
Coppersmiths	172	4,090.76	△ 51	△ 1,158.66
Machanics, erecting shop	2,224	51,119.15	96	1,416.49
Smiths	1,289	26,918.16	△ 32	△ 1,019.35
Mechanics, boiler shop	1,884	41,745.29	55	1,307.62
do., lathe shop	994	21,870.86	△ 2	△ 238.72
do., casting shop	521	11,803.79	4	△ 166.45
Sewers	451	8,278.05	80	1,608.13
do., female	198	1,451.52	48	297 85
Machanics, pattern shop	60	1,573.76	△ 2	△ 129.83
do., paint shop	828	17,210.70	△ 9	△ 405.30
Woodworkers	3,350	76,836.19	△ 37	△ 1,219.25
Turners	223	4,971.30	△ 8	△ 66.61
Mechanics, finishing shop	1,032	22,171.74	105	2,009.75
Workmen, gas apparatus	14	239.69	△ 3	△ 34.06
Foremen mechanics	491	16,779.68	491	16,779.68
Mechanics' helpers	4,112	49,261.45	67	1,816.62
do., female	202	1,564.64	18	174.89
do., apprentice	544	4,957.92	189	1,712.75
Firemen, heating apparatus	—	—	△ 2	△ 39.00

OFFICIALS AND EMPLOYEES—*Continued.*

Item / Designation	Year under review		Inc. or dec. (△) against preceding year	
	Number	Monthly sum of salary or wages	Number	Monthly sum of salary or wages
		yen		*yen*
Foremen, porters	258	5,291.91	△ 10	147.33
Policemen	800	12,165.75	△ 24	339.75
Pointmen	4,230	63,701.32	478	7.922.91
Porters, goods	3,162	49 021.62	118	3,609.86
Coupler hands	1,650	20,125.50	135	2,151.68
Engine drivers, apprentice	25	304.17	25	304.17
Student mechanics	1	30.41	1	30.41
Telephone operators	52	468.12	52	468.12
do., female	34	252.75	34	252.75
Porters	9,309	100,106.12	268	4,795.36
do., female	16	140.53	△ 15	△ 117.97
Brakemen	1,130	14 676.65	34	823.31
Train boys	313	2,597.59	58	370.01
Goods porters, train service	396	6,135.04	148	2,330.21
Porters, train service	69	599.52	38	281.35
Collection-and-delivery men, goods	168	3,432.22	4	913.30
Foremen, electric wiring gang	36	945.03	8	236.86
Labourers, electric wiring	639	10.442.36	106	1,503.16
Machanics, electric machines	245	4,949.86	9	173.28
do., famale	1	6.10	1	6.10
Enginemen, power station	32	854.70	—	54.54
do., apprentice	5	89.43	△ 4	△ 38.65
Firemen, power station	68	1,365.40	21	428.56
do., apprentice	15	192.85	12	156.60
Apprentice greaser, power station	4	49.28	4	49.28
Tenders, electric machines	62	1,151.89	36	668.31
Tenders, apprentice	19	224.18	7	108.60
Inspectors, electric car	16	312.08	3	70.25
do., electric lamps	91	1,682.34	11	201.35
do,, apprentice	87	1,058.18	30	367.75
Workmen, electric apparatus	66	1,301.71	20	382.29
Cooks, foreign meal	11	289.57	△ 1	△ 17.68
Butlers	1	11.56	△ 1	△ 15.86
Waiters, hotel	16	160.30	2	17.05
Cooks' helpers	7	104.33	1	14.91
do., female	1	9.13	—	.88
Steersmen	57	996.46	2	17.04
Greasers, steamer service	60	1,021.09	△ 3	56.17
Sailors	111	1,390.66	△ 3	15.40
Firemen, steamer service	137	1,639.46	△ 14	△ 100.95
Shipwrights	13	307.21	1	△ 46.54
Waiters, steamer service	116	1,440 54	△ 24	△ 231.80
Coolies, steamer service	21	285.31	△ 3	△ 28.60
Cooks, Japanese meal	20	366 52	2	51.10
Ship's hands	127	2,513.64	13	297.72
Total — *male*	71,929	1,122,282.28	4,092	84,480.32
Total — *female*	2,732	15,669.52	198	2,121.10
Total — total	74,661	1,137,951.80	4,290	86,601.42
Average salary per capita		15.24		.30
Grand total — *male*	106,521	2,071,212.95	6,252	151,769.15
Grand total — *female*	3,462	22,448.20	313	3,285.00
Grand total — total	109,983	2,093,661.15	6,565	155,054.15
Average salary par capita		19.04		.29

Table No.

GRANTS FROM RELIEF

according to the

Kind / Grade / Grants classified / Recipients classified	Injuries on duty.									
	1st grade		1st grade		2nd grade		3rd grade		4th grade	
	Injury		Injury		Death grants		Injury grants		Injury grants	
	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount
		yen		*yen*		*yen*		*yen*		*yen*
Station masters	—	—	—	—	—	—	—	—	—	—
Assistant station masters	—	—	—	—	—	—	1	322.00	1	216.00
do., in reserve	—	—	—	—	—	—	—	—	—	—
Yard masters	—	—	—	—	—	—	—	—	—	—
Conductors	9	4,239.00	8	2,081.96	—	—	4	1,269.00	1	116.10
Booking agents	1	297.00	1	126.98	—	—	—	—	—	—
Ticket examiners	—	—	—	—	—	—	—	—	1	94.50
Goods agents	—	—	—	—	—	—	—	—	—	—
Parcels agents	—	—	—	—	—	—	—	—	—	—
Telegraph operators	—	—	—	—	—	—	—	—	—	—
Assistant clerks, station service	—	—	—	—	—	—	—	—	—	—
Railway guides	—	—	—	—	—	—	—	—	—	—
Conductors, acting	4	1,701.00	3	743.41	—	—	1	273.60	—	—
Student conductors	—	—	—	—	—	—	1	189.00	—	—
Shunters	8	4,882.50	8	2,424.04	—	—	2	454.50	1	210.00
Numbertakers	—	—	—	—	—	—	1	193.20	—	—
Signal tower men	2	783.00	2	530.61	—	—	—	—	—	—
Foremen, porters	—	—	—	—	—	—	—	—	—	—
Brakemen	5	2,025.00	4	1,054.63	1	453.60	5	856.20	4	381.00
Pointmen	18	8,253.00	18	3,416.71	—	—	4	805.50	7	914.10
Policemen	—	—	—	—	—	—	1	178.50	—	—
Porters, goods	12	4,797.00	9	1,561.56	—	—	3	629.70	10	1,277.10
Lamp tenders	1	360.00	1	87.87	—	—	7	216.00	—	—
Coupler hands	53	17,212.50	28	5,776.37	3	772.20	23	3,839.70	19	1,987.80
Porters	34	9,580.50	17	3,021.78	—	—	30	4,213.50	17	1,635.90
Train boys	—	—	—	—	—	—	—	—	—	—
Collection-and-delivery men, goods	—	—	—	—	—	—	—	—	—	—
Roundhouse masters	—	—	—	—	—	—	—	—	—	—
Roundhouse master's helpers	—	—	—	—	—	—	—	—	—	—
Engine drivers	4	3,081.00	4	1,235.96	—	—	1	750.00	3	718.80
do., acting	—	—	—	—	—	—	—	—	—	—
do., apprentice	1	414.00	1	314.32	—	—	—	—	—	—
Firemen	6	2,187.00	5	1,205.21	—	—	2	365.10	4	560 70
do., acting	—	—	—	—	—	—	—	—	—	—
do., apprentice	3	936.00	3	663.84	1	210.00	—	—	3	292.20
Engine cleaners	3	1,026.00	1	222.32	—	—	2	288.60	4	393.00
Signalmen	—	—	—	—	—	—	1	147.00	1	115.50
Greazers	—	—	—	—	—	—	1	138.60	1	141.90
Coal-and-pumping men	3	1,296.00	3	321.67	1	300.00	3	571.20	2	269.70
Cleaners, locos	1	315.00	—	—	—	—	—	—	2	130.20
Cleaners, pass. cars	1	486.00	1	71.57	—	—	—	—	1	108.00
Car inspectors	2	1,188.00	2	375.68	—	—	1	429.00	4	923.40
Car inspectors' helpers	2	1,035.00	2	416.54	—	—	2	387.00	1	172.80

LXVI.

ASSOCIATION

Kinds of Employment.

5th grade		Medical allowance		Old age grants (interest included)		Deaths not on duty		Grand total					
								Amount					
Injury grants		No.	Amount	No.	Amount	Death grants		No.	Death grants	Injury grants	Medical allowance	Old age grants	Total
No.	Amount					No.	Amount						
	yen		*yen*		*yen*		*yen*		*yen*	*yen*	*yen*	*yen*	*yen*
—	—	1	12.24	—	—	—	—	1	—	—	12.24	—	12.24
—	—	7	210.44	—	—	1	343.83	10	43.83	538.00	210.44	—	1,092.27
—	—	5	61.66	—	—	3	927.86	8	927.36	—	61.66	—	989.52
1	70.00	1	10.80	—	—	1	198.45	3	198.45	70.00	10.80	—	279.25
4	163.20	110	2,238.52	—	—	27	7,647.67	163	9,729.63	5,787.30	2,238 52	—	17,755.45
—	—	3	7.75	—	—	12	3,275.95	17	3,402.93	297 00	7.75	—	3,707.68
—	—	—	16.30	—	—	6	1,560.14	7	1,560.14	94.50	16.30	—	1,670 94
—	—	10	273.51	—	—	10	2,690.82	20	2,694.82	—	273.51	—	2,968.33
—	—	3	97.15	—	—	3	795.84	6	795.84	—	97.15	—	892.99
—	—	1	54.12	—	—	11	2,954.20	12	2,954.20	—	54.12	—	3,008.32
—	—	1	4.80	—	—	2	494.98	3	494.98	—	4.80	—	499.78
—	—	1	12.00	—	—	1	362.71	2	362.71	—	12.00	—	374.71
1	40.50	30	567.70	—	—	1	232.13	40	975.51	2,015.10	567.70	—	3,558.34
—	—	1	289.51	—	—	—	—	2	—	189.00	289.51	—	478.51
4	150.20	71	1,779.37	1	56.35	9	2,002.19	105	4,426.23	5,701.20	1,779.37	56.35	11,963.15
—	—	8	333.86	—	—	7	2,171.38	16	2,171.38	193.20	333.86	—	2,698.44
—	—	13	174.73	—	—	4	913.29	21	1,443.90	783.00	174.73	—	2,401.63
—	—	4	31.60	—	—	—	—	4	—	—	31.60	—	31.60
6	146.40	89	2,190.36	—	—	8	1,589.44	122	2,644.07	3,852.20	2,190.36	—	8,696.63
8	274.20	116	3,576.39	—	—	18	3,947.63	189	7,304.34	10,246.80	3,576 39	—	21,187.53
1	36.90	14	162.17	—	—	3	673.65	19	673.65	215.40	162.17	—	1,051.22
4	141.60	281	4,082.33	—	—	8	1,472.75	327	3,034.31	6,845.40	4,082.33	—	13,962.04
—	—	20	116.51	—	—	2	321.47	25	409.34	576.00	116.51	—	1,101.85
28	719.40	460	12,926.94	—	—	2	388.52	616	6,164.89	24,531.60	12,926.94	—	43,623.43
15	323.40	334	10,137.96	—	—	24	5,059.06	471	8,080.84	15,753.36	10,137.76	—	33,971.90
—	—	3	65.32	—	—	2	368.41	5	368.41	—	65.32	—	433.73
—	—	8	17.32	—	—	1	158.25	9	158.25	—	17.32	—	175.57
—	—	—	—	—	—	1	555.69	1	555.69	—	—	—	555.69
—	—	2	247.84	—	—	3	1,165.20	5	1,165.20	—	247.84	—	1,413.04
2	105.90	149	1,731.70	—	—	17	5,919.21	180	7,155.17	4,655.70	1,731.70	—	13,542.57
—	—	4	17.20	—	—	—	—	4	—	—	17.20	—	17.20
1	13.50	8	30.90	—	—	2	838.43	13	1,152.75	427.50	30.90	—	1,611.16
5	123.30	258	3,335.52	—	—	11	2,958.93	291	4,164.14	3,236.10	3,335.52	—	10,735.76
—	—	8	301.01	—	—	—	—	8	—	—	301.01	—	301.01
—	—	62	843.38	—	—	1	235.94	73	899.78	1,438.20	843.38	—	3,181.36
1	9.00	185	1,902.36	—	—	7	1,552.65	204	1,774.97	1,716.60	1,902.36	—	5,393.93
1	15.60	25	351.12	—	—	3	581.09	31	581.09	278.10	351.12	—	1,210.31
2	61.50	32	421.56	—	—	2	501.84	38	501.84	342.00	421.56	—	1,265.40
1	13.80	217	2,389.95	—	—	7	869.61	237	1,191.28	2,450.70	2,389.95	—	6,031.93
—	—	34	425.11	—	—	—	—	37	—	445.20	425.11	—	870.31
—	—	38	246.05	1	113.20	4	213.90	47	285.47	594.00	246.05	33.01	1,158 53
—	—	48	661.51	2	1.19	6	1,602.35	67	1,978.03	2.540.40	661.51	1.19	5,298.94
—	—	25	711.20	—	—	3	769.15	35	1,185.69	1,594.80	711.20	—	3,491.69

GRANTS FROM RELIEF

according to the Kind

Kind / Grade / Grants classified / Recipients classified	Injuries suffered on duty									
	1st grade				2nd grade		3rd grade		4th grade	
	Injury grants		Death grants		Injury grants		Injury grants		Injury grants	
	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount
		yen		*yen*		*yen*		*yen*		*yen*
Enginemen, feeder service	—	—	—	—	—	—	—	—	—	—
Firemen, feeder service	—	—	—	—	—	—	—	—	—	—
Watchmen, general articles	—	—	—	—	—	—	—	—	—	—
Electric lamp examiners	—	—	—	—	—	—	—	—	—	—
do., apprentice	—	—	—	—	—	—	—	—	—	—
Electric car drivers	—	—	—	—	—	—	1	221.40	—	—
do., apprentice	—	—	—	—	—	—	—	—	—	—
Enginemen, power stations	—	—	—	—	—	—	—	—	—	—
do., apprentice	—	—	—	—	—	—	—	—	—	—
Firemen, power stations	—	—	—	—	—	—	—	—	—	—
do., apprentice	—	—	—	—	—	—	—	—	—	—
Inspectors, electric cars	—	—	—	—	—	—	—	—	—	—
Tenders, electric machines	—	—	—	—	—	—	—	—	—	—
do., apprentice	—	—	—	—	—	—	—	—	—	—
Foreman labourers, electric wiring	—	—	—	—	—	—	—	—	—	—
Labourers, electric wiring	2	837.00	1	154.62	—	—	1	180.00	1	132.00
Workmen, electric apparatus	—	—	—	—	—	—	—	—	—	—
Trackmaster's assistants	—	—	—	—	—	—	—	—	—	—
Constructors' assistants	—	—	—	—	—	—	—	—	—	—
Foremen, track gang	—	—	—	—	—	—	—	—	1	199.80
Trackmen	34	14,643.00	30	5,810.50	—	—	13	2,815.80	14	1,698.60
Machine keepers	—	—	—	—	—	—	—	—	—	—
Watchmen, bridges	—	—	—	—	—	—	—	—	—	—
Watchmen, tunnels	—	—	—	—	—	—	—	—	—	—
Watchmen, level crossings	6	1,593.00	6	476.09	—	—	—	—	1	81.00
Carpenters, of regular employ	—	—	—	—	—	—	—	—	—	—
Master mechanics	—	—	—	—	—	—	—	—	—	—
Enginemen, workshop	—	—	—	—	—	—	—	—	—	—
Mechanics, electric shop	1	990.00	1	233.58	—	—	1	126.00	—	—
Workmen, erecting shop	1	567.00	1	237.86	1	528.00	1	202.50	9	1,524.60
Workmen, lathe shop	—	—	—	—	—	—	1	241.80	3	624.00
Workmen, finishing shop	2	1,395.00	2	630.49	1	420.00	—	—	—	—
Smiths	1	504.00	—	—	—	—	1	399.00	13	2,377.20
Workmen, boiler shop	2	1,269.00	2	339.49	—	—	7	2,088.60	9	1,676.70
Workmen, casting shop	—	—	—	—	—	—	—	—	—	—
Workmen, pattern shop	—	—	—	—	—	—	—	—	—	—
Coppersmiths	—	—	—	—	—	—	—	—	—	—
Woodworkers	—	—	—	—	1	576.00	1	273.00	10	1,751.40
Turners	—	—	—	—	—	—	—	—	1	108.00
Painters	—	—	—	—	—	—	—	—	—	—
Sewers	—	—	—	—	—	—	—	—	—	—
Tool-keepers, workshop	—	—	—	—	—	—	—	—	—	—
Mechanics' helpers	3	972.00	1	116.04	—	—	—	—	6	720.00
Firemen, workshop	—	—	—	—	—	—	—	—	—	—
Foremen, work shop people	—	—	—	—	—	—	—	—	—	—
Mechanics, apprentice	—	—	—	—	—	—	—	—	1	57.60
Student mechanics	—	—	—	—	—	—	—	—	—	—

ASSOCIATION

of Employment.—*Continued.*

5th grade		Medical allowance		Old age grants (interest included)		Deaths not on duty		Grand total					
								Amount					
Injury grants						Death grants							
No.	Amount	No.	Amount	No.	Amount	No.	Amount	No	Death grants	Injury grants	Medical allowance	Old age grants	Total
	yen		*yen*		*yen*		*yen*		*yen*	*yen*	*yen*	*yen*	*yen*
—	—	2	9.45	—	—	—	—	2	—	—	9.45	—	9.45
—	—	3	3.66	—	—	—	—	3	—	—	3.66	—	3.66
—	—	2	4.85	—	—	2	304.21	4	304.21	—	4.85	—	309.06
—	—	7	243.40	—	—	3	845.06	10	845.06	—	243.40	—	1,088.46
1	41.40	5	4.15	—	—	—	—	6	—	41.40	4.15	—	45.55
—	—	11	23.52	—	—	—	—	12	—	221.40	23.52	—	244.92
—	—	3	95.10	—	—	—	—	3	—	—	95.10	—	95.10
1	27.00	3	52.96	—	—	—	—	4	—	27.00	52.96	—	79.96
—	—	2	23.90	—	—	—	—	2	—	—	23.90	—	23.90
—	—	9	25.27	—	—	—	—	9	—	—	25.27	—	25.27
—	—	2	5.56	—	—	—	—	2	—	—	5.56	—	5.56
—	—	2	14.86	—	—	—	—	2	—	—	14.86	—	14.86
1	18.00	2	34.16	—	—	—	—	3	—	18.00	34.16	—	52.16
—	—	2	6.13	—	—	—	—	2	—	—	6.13	—	6.13
—	—	2	3.10	—	—	—	—	2	—	—	3.10	—	3.10
—	—	46	832.26	—	—	5	1,172.59	56	1,327.21	1,149.00	832.26	—	3,308.47
1	14.70	3	23.11	—	—	1	163.14	5	163.14	14.70	23.11	—	200.95
—	—	10	129.28	—	—	1	120.53	11	120.53	—	129.28	—	249.81
—	—	—	—	—	—	1	220.93	1	220.93	—	—	—	220.93
—	—	8	143.82	—	—	1	272.08	10	272.08	199.80	143.82	—	615.70
21	540.00	535	9,703.90	1	39.29	37	5,721.46	686	11,531.96	19,697.40	9,703.90	39.29	40,972.55
—	—	3	7.06	—	—	—	—	3	—	—	7.06	—	7.06
—	—	—	—	—	—	1	35.47	1	35.47	—	—	—	35.47
—	—	2	72.31	—	—	3	320.14	5	320.14	—	72.31	—	392.45
—	—	22	668.39	1	30.52	22	1,570.04	59	2,046.13	1,674.00	668.39	30.52	4,419.04
—	—	22	570.60	—	—	—	—	22	—	—	570.60	—	570.60
1	53.10	22	47.57	—	—	2	777.03	25	777.03	53.10	47.57	—	877.70
—	—	1	2.50	—	—	—	—	1	—	—	2.50	—	2.50
1	20.40	26	135.57	—	—	—	—	30	233.58	1,136.40	135.57	—	1,505.55
20	661.80	588	3,954.20	—	—	12	3,437.62	633	3,675.48	3,483.90	3,954.20	—	11,113.58
12	377.10	230	803.11	—	—	6	2,100.29	252	2,100.29	1,242.90	803.11	—	4,146.30
2	96.00	179	646.32	—	—	7	2,211.77	193	2,842.26	1,911.00	646.32	—	5,399.58
13	585.00	368	2,175.55	—	—	7	1,665.90	403	1,665.90	3,865.20	2,175.55	—	7,706.65
18	685.20	611	4,342.62	—	—	6	1,351.34	655	1,690.83	5,719.50	4,342.62	—	11,752.95
1	17.40	82	381.95	—	—	1	297.85	84	297.85	17.40	381.96	—	697.20
—	—	3	9.05	—	—	2	1,017.40	5	1,017.40	—	9.05	—	1,026.45
—	—	14	30.41	—	—	2	355.52	16	355.52	—	30.41	—	305.93
17	566.10	465	3,763.23	3	207	14	2,730.71	514	2,730.71	3,166.50	3,763.23	207	9,867.44
5	145.20	30	277.27	—	—	3	384.41	39	384.41	253.20	377.27	—	914.88
—	—	51	403.13	—	—	5	1,046.24	56	1,046.24	—	403.13	—	1,449.37
—	—	2	4.85	—	—	2	474.74	4	474.74	—	4.85	—	479.59
—	—	7	8.74	—	—	1	100.27	8	100.27	—	8.74	—	109.01
18	261.90	1,359	6,767.90	—	—	9	2,066.65	1,396	2,182.69	1,953.90	6,767.90	—	10,904.49
1	31.20	5	10.91	—	—	—	—	6	—	31.20	10.91	—	42.11
—	—	2	1.62	—	—	1	255.55	3	255.55	—	1.62	—	257.17
—	—	25	88.89	—	—	—	—	26	—	57.60	88.89	—	146.49
1	28.80	50	132.25	—	—	—	—	51	—	28.80	132.25	—	161.05

GRANTS FROM RELIEF

according to the of

Kind	Injuries on duty									
Grade	1st grade				2nd grade		3rd grade		4th grade	
Grants classified	Injury grants		Injury grants		Death grants		Injury grants		Injury grants	
Recipients classified	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount
		yen		*yen*		*yen*		*yen*		*yen*
Master mechanic's assistants	—	—	—	—	—	—	—	—	—	—
Mechanics, gas engines	—	—	—	—	—	—	—	—	—	—
Foremen, construction gang	—	—	—	—	—	—	—	—	—	—
Labourers, surveying	—	—	—	—	—	—	1	252.00	—	—
do., construction	1	585.00	1	316.68	—	—	1	387.60	1	240.30
Printers	—	—	—	—	—	—	—	—	—	—
Lithographers	—	—	—	—	—	—	—	—	—	—
Guards, storehouse	—	—	—	—	—	—	—	—	—	—
Guards	—	—	—	—	—	—	—	—	—	—
Servants	—	—	—	—	—	—	1	126.00	—	—
Office boys	—	—	—	—	—	—	—	—	—	—
Labourers, of regular employ	—	—	—	—	—	—	1	291.60	1	466.20
Seamen	—	—	—	—	—	—	—	—	—	—
Employees, round-house	—	—	—	—	—	—	—	—	—	—
do., section	—	—	—	—	—	—	—	—	—	—
do., workshop	—	—	—	—	—	—	—	—	—	—
do., workshop	—	—	—	—	—	—	—	—	—	—
Operators, steam cranes	—	—	—	—	—	—	—	—	—	—
Assistant operators, hydraulic cranes	—	—	—	—	—	—	—	—	—	—
Storekeepers	—	—	—	—	—	—	—	—	—	—
Firemen, steam cranes	—	—	—	—	—	—	—	—	—	—
do., hydraulic cranes	—	—	—	—	—	—	—	—	—	—
Employees	1	540.00	1	236.79	—	—	—	—	—	—
Assistant engineers	—	—	—	—	—	—	—	—	—	—
Foremen, mechanics	—	—	—	—	—	—	—	—	—	—
Chiefs of trains	—	—	—	—	—	—	—	—	—	—
Clerks	—	—	—	—	—	—	—	—	—	—
Lithographers, apprentice	—	—	—	—	—	—	—	—	—	—
Total	228	89,989.50	167	34,205.17	9	3,259.80	121	24,122.20	160	22,316.10

ASSOCIATION

Employment.—*Continued.*

5th grade		Medical allowance		Old age grants (interest included)		Deaths not on duty		Grand total					
								Amount					
Injury grants		No.	Amount	No.	Amount	Death grants		No.	Death grants	Injury grants	Medical allowance	Old age grants	Total
No.	Amount					No.	Amount						
	yen		*yen*		*yen*		*yen*		*yen*	*yen*	*yen*	*yen*	*yen*
—	—	9	37.95	—	—	2	557.10	11	557.10	—	37.95	—	595.05
—	—	2	15.15	—	—	—	—	2	—	—	15.15	—	15.15
—	—	2	392.47	—	—	—	—	2	—	—	392.47	—	392.47
—	—	7	187.16	—	—	2	360.58	10	360.58	252.00	187.16	—	799.74
3	79.20	31	574.17	—	—	7	1,041.73	45	1,358.41	1,292.10	574.17	—	3,224.68
—	—	1	6.28	—	—	3	877.91	4	877.91	—	6.28	—	884.19
—	—	—	—	—	—	2	484.16	2	484.16	—	—	—	484.16
1	42.30	7	198.49	—	—	—	—	8	—	42.30	198.49	—	240.79
—	—	—	—	—	—	1	45.11	1	45.11	—	—	—	45.11
—	—	10	380.03	—	—	7	1,030.48	18	1,030.48	126.00	380.03	—	1,536.51
—	—	4	14.81	—	—	3	469.97	7	469.97	—	14.81	—	484.78
8	176.70	151	1,570.64	1	42.70	8	1,509.97	173	1,509.97	934.50	1,570.64	42.70	4,057.81
1	15.90	21	160.88	—	—	1	252.62	23	252.62	15.90	160.88	—	429.40
—	—	—	—	—	—	1	390.01	1	390.01	—	—	—	390.01
—	—	1	71.81	—	—	2	507.73	3	507.73	—	71.81	—	579.54
—	—	1	.95	—	—	2	677.22	3	677.22	—	.95	—	678.17
—	—	—	—	—	—	2	846.85	2	846.85	—	—	—	846.85
—	—	1	2.08	—	—	—	—	1	—	—	2.08	—	2.08
—	—	1	1.69	—	—	—	—	1	—	—	1.69	—	1.69
—	—	1	1.22	—	—	—	—	1	—	—	1.22	—	1.22
—	—	1	3.23	—	—	1	240.23	2	240.23	—	3.23	—	243.46
—	—	1	16.45	—	—	—	—	1	—	—	16.45	—	16.45
—	—	12	147.59	—	—	20	5,673.68	31	5,910.47	540 00	147.59	—	6,598.06
—	—	2	10.87	—	—	1	406.10	3	406.10	—	10.87	—	416.97
—	—	3	61.71	—	—	—	—	3	—	—	61.71	—	61.71
—	—	1	2.40	—	—	—	—	1	—	—	2.40	—	2.40
—	—	—	—	—	—	1	563.08	1	563.08	—	—	—	563.08
—	—	—	—	—	—	1	220.01	1	220.01	—	—	—	220.01
233	6,896.80	7,788	93,614.04	10	527.87	457	105,492.09	9,183	139,697.26	46,584.40	93,614.04	527.87	380,423.57

Table No. XLVII.

MORTALITIES OF THE MEMBERS OF THE RELIEF ASSOCIATION ACCORDING TO THEIR CAUSES.

Description		Kind of service / Class	Station service A class	Station service B class	Station service C class	Station service Total	Engine shed service A class	Engine shed service B class	Engine shed service C class	Engine shed service Total	Workshop service A class	Workshop service B class	Workshop service C class	Workshop service Total	Maintenance service A class	Maintenance service B class	Maintenance service C class	Maintenance service Total	Others A class	Others B class	Others C class	Others Total	Total A class	Total B class	Total C class	Total Total
Death by injuries	on duty	Run over	69	—	29	98	4	—	—	4	3	—	1	4	29	—	7	36	2	—	1	3	107	—	38	145
		Crushed	18	—	14	32	13	—	5	18	3	—	2	5	1	—	—	1	2	—	—	2	37	—	21	58
		Burnt	3	—	—	3	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	4	—	—	4
		Drowned	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1	1	—	—	1
		Others	17	—	3	20	5	—	—	5	3	—	1	4	5	—	—	5	4	—	2	6	34	—	6	40
		Total	107	—	46	153	23	—	5	28	9	—	4	13	35	—	7	42	9	—	3	12	183	—	65	248
	not on duty	Run over	3	—	3	6	1	—	—	1	—	—	—	—	1	—	1	2	1	—	—	1	6	—	4	10
		Others	4	—	—	4	6	—	—	6	1	—	1	2	—	—	1	1	1	—	—	1	12	—	2	14
		Total	7	—	3	10	7	—	—	7	1	—	1	2	1	—	2	3	2	—	—	2	18	—	6	24
Grand total			114	—	49	163	30	—	5	35	10	—	5	15	36	—	9	45	11	—	3	14	201	—	71	272
Suicide			2	—	—	2	3	—	—	3	—	—	—	—	2	—	—	2	—	—	—	—	7	—	—	7
	Respiratory organs	Pulmonary tuberculosis	42	—	1	43	16	3	1	20	21	—	—	21	7	—	—	7	22	—	1	23	108	3	3	114
		Tuberculous pleuritis	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1
		Laryngeal tuberculosis	6	—	—	6	2	—	—	2	—	—	—	—	—	—	—	—	1	—	—	1	9	—	—	9
		Pneumonia	13	—	1	14	6	—	—	6	3	—	2	5	4	—	1	5	6	—	2	8	32	—	6	38
		Pleuritis	8	—	1	9	1	—	—	1	3	—	—	3	1	—	—	1	2	—	1	3	15	—	2	17
		Bronchitis	5	—	—	5	—	—	—	—	6	—	—	6	2	—	—	2	3	—	1	4	16	—	1	17
		Pulmonary phthisis	4	—	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	—	—	4
		Others	5	—	1	6	5	—	—	5	1	—	—	1	2	—	—	2	2	1	—	3	15	1	1	17
		Total	84	—	4	88	30	3	1	34	34	—	2	36	16	—	1	17	36	1	5	42	200	4	13	217
	Nervous system & sense organs	Tuberculous meningtis	1	—	—	1	—	—	—	—	1	—	—	1	1	—	—	1	—	—	—	—	3	—	—	3
		Meningtis	11	—	2	13	2	—	—	2	4	—	3	7	2	—	—	2	2	—	—	2	21	—	5	26
		Apoplexy	2	—	—	2	1	—	1	2	1	—	1	2	2	—	2	4	2	—	—	2	8	—	4	12
		Cerebral Hoemorrhage	1	—	—	1	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	2
		Congestion of the brain	1	—	—	1	—	—	—	—	—	—	—	—	1	—	1	2	1	—	—	1	3	—	1	4
		Cerebral anemia	—	—	—	—	—	—	—	—	1	—	—	1	1	—	—	1	—	—	—	—	2	—	—	2
		Myelitis	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1	—	—	—	—	1	—	—	1
		Others	1	—	1	2	—	—	—	—	—	—	—	—	3	—	2	5	1	—	—	1	5	—	3	8
		Total	17	—	3	20	4	—	1	5	7	—	4	11	11	—	5	16	6	—	—	6	45	—	13	58

Death from natural causes																												
Digestive organs	Tuberculous Peritonaeritis	—	—	—	—	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1
	Peritonaeritis	10	—	1	11	1	—	—	1	4	—	1	5	4	—	—	4	3	—	1	4	22	—	3	25
	Intestinal tuberculosis ...	2	—	—	2	2	—	—	2	4	—	—	4	1	—	—	1	1	—	—	1	10	—	—	10
	Gastro-enteric catarrh ...	4	—	—	4	1	—	—	1	1	—	—	1	1	—	—	1	—	—	1	1	7	—	1	8
	Gastro-orosis	1	—	—	1	—	—	—	—	—	—	—	—	1	—	1	2	—	—	—	—	2	—	1	3
	Gastric catarrh	2	—	—	2	—	—	—	—	1	—	—	1	1	—	—	1	—	—	—	—	4	—	—	4
	Intestinal catorrh	1	—	—	1	2	—	—	2	2	—	—	2	2	—	—	2	1	—	—	1	8	—	—	8
	Hepatitis	—	—	—	—	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1
	Cancer	2	—	1	3	4	—	1	5	1	—	—	1	1	—	—	1	2	—	—	2	10	—	2	12
	Typhlitis	4	—	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	—	—	4
	Others	2	—	1	3	—	1	1	2	3	—	2	5	5	—	2	7	—	—	—	—	10	1	6	17
	Total	28	—	3	31	12	1	2	15	16	—	3	19	16	—	3	19	7	—	2	9	79	1	13	93
Blood circulation system	Cardipplegia	3	—	2	5	2	—	—	2	3	—	—	3	2	—	—	2	2	—	—	2	12	—	2	14
	Diclidonosis	1	—	—	1	3	—	—	3	3	—	—	3	—	—	—	—	—	—	1	1	2	—	1	8
	Mitralinsufficienz	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1
	Troubles in the valves of the heart	—	—	—	—	—	—	—	—	1	—	—	1	1	—	—	1	—	—	—	—	2	—	—	2
	Others	—	—	—	—	—	—	1	1	1	—	—	1	—	—	—	—	1	—	—	1	2	—	1	3
	Total	5	—	2	7	5	—	1	6	8	—	—	8	3	—	—	3	3	—	1	4	24	—	4	28
Uriogenital diseases	Nephritis	1	—	—	1	1	—	—	1	—	—	—	—	1	—	—	1	1	—	1	2	4	—	1	5
	Others	2	—	—	2	1	—	—	1	—	—	1	1	5	—	—	5	1	—	—	1	9	—	1	10
	Total	3	—	—	3	2	—	—	2	—	—	1	1	6	—	—	6	2	—	1	3	13	—	2	15
Acute epidemics	Dysentery	6	—	—	6	—	—	—	—	1	—	—	1	—	—	—	—	—	—	—	—	7	—	—	7
	Typhoid fever	9	—	2	11	3	—	1	4	4	—	1	5	5	—	—	5	1	—	—	1	22	—	4	26
	Others...	2	—	—	2	—	—	—	—	3	—	—	3	2	—	1	3	2	—	1	3	9	—	2	11
	Total	17	—	2	19	3	—	1	4	8	—	1	9	7	—	1	8	3	—	1	4	38	—	6	44
	Kakke	3	—	—	3	3	—	—	3	1	—	—	1	2	—	1	3	3	—	—	3	12	—	1	13
	Others	14	—	2	14	8	—	—	8	6	—	4	10	8	—	—	8	7	1	3	11	43	1	9	53
	Grand total	171	—	16	187	67	4	6	77	80	—	15	95	69	—	11	80	67	2	13	82	454	6	61	521
Sum total		287	—	65	352	100	4	11	115	90	—	20	110	107	—	20	127	78	2	16	96	662	6	132	800
Sum total for 1911		259	2	69	330	106	2	12	120	106	—	7	113	125	—	17	142	49	2	7	58	645	6	112	763

Table No.

MEMBERS OF RELIEF ASSOCIATION

Class		Born in	1839	1840	1841	1842	1843	1844	1845	1846	1847	1848	1849	1850	1851	1852
		Age	75	74	73	72	71	70	69	68	67	66	65	64	63	62
Eastern Division	A class		—	—	—	—	—	—	—	—	—	—	—	—	—	—
	B class		—	—	—	—	—	—	—	—	—	—	—	—	—	—
	C class		—	1	—	—	—	—	—	1	6	4	9	4	13	23
	Total		—	1	—	—	—	—	—	1	6	4	9	4	13	23
Central Division	A class		—	—	—	—	—	—	—	—	—	—	—	—	—	—
	B class		—	—	—	—	—	—	—	—	—	—	—	—	—	—
	C class		2	—	—	1	1	1	5	2	3	6	15	14	19	29
	Total		2	—	—	1	1	1	5	2	3	6	15	14	19	29
Western Division	A class		—	—	—	—	—	—	—	—	—	—	—	—	—	—
	B class		—	—	—	—	—	—	—	—	—	—	—	—	—	—
	C class		—	—	2	1	2	2	3	2	3	9	7	22	19	38
	Total		—	—	2	1	2	2	3	2	3	9	7	22	19	38
Kyushu Division	A class		—	—	—	—	—	—	—	—	—	—	—	—	—	—
	B class		—	—	—	—	—	—	—	—	—	—	—	—	—	—
	C class		—	—	—	—	1	—	—	—	1	2	3	2	3	8
	Total		—	—	—	—	1	—	—	—	1	2	3	2	3	8
Hokkaido Division	A class		—	—	—	—	—	—	—	—	—	—	—	—	—	—
	B class		—	—	—	—	—	—	—	—	—	—	—	—	—	—
	C class		1	—	—	—	—	1	2	1	2	2	7	8	6	7
	Total		1	—	—	—	—	1	2	1	2	2	7	8	6	7
Construction Offices	A class		—	—	—	—	—	—	—	—	—	—	—	—	—	—
	B class		—	—	—	—	—	—	—	—	—	—	—	—	—	—
	C class		—	—	—	—	—	—	—	1	2	1	3	6	6	5
	Total		—	—	—	—	—	—	—	1	2	1	3	6	6	5
Head Office	A class		—	—	—	—	—	—	—	—	—	—	—	—	—	—
	B class		—	—	—	—	—	—	—	—	—	—	—	—	—	—
	C class		—	—	—	—	—	—	—	—	1	—	—	—	1	2
	Total		—	—	—	—	—	—	—	—	1	—	—	—	1	2
Grand total	A class		—	—	—	—	—	—	—	—	—	—	—	—	—	—
	B class		—	—	—	—	—	—	—	—	—	—	—	—	—	—
	C class		3	1	2	2	4	4	10	7	18	24	44	56	67	112
	Total		3	1	2	2	4	4	10	7	18	24	44	56	67	112

32 586

N.B.—The figures given under "age" do not represent the results computed on the ordinary twelvemonth basis; they are the

XLVIII.

ACCORDING TO AGE.

1853	1854	1855	1856	1857	1858	1859	1860	1861	1862	1863	1864	1865	1866	1867	1868	1869	1870	1871
61	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43
—	—	—	—	3	63	59	69	73	85	113	120	154	178	207	253	210	236	270
—	—	—	—	—	3	—	1	4	2	1	2	8	7	5	9	9	8	14
25	14	28	48	46	12	4	6	5	2	1	1	4	3	3	10	5	10	8
25	14	28	48	49	78	63	76	82	89	115	123	166	188	215	272	224	254	292
—	—	—	—	6	76	76	108	101	103	139	183	210	227	266	333	312	299	366
—	—	—	—	—	1	2	2	2	4	8	11	9	12	9	14	11	10	6
36	32	46	46	81	7	5	4	7	—	2	2	—	4	1	4	4	7	8
36	32	46	46	87	84	83	114	110	107	149	196	219	243	276	351	327	316	380
—	—	—	—	5	58	90	87	78	104	130	166	192	165	235	258	254	272	305
—	—	—	—	—	—	1	—	1	—	2	1	1	3	1	2	3	2	5
42	38	48	52	67	12	10	4	4	—	—	1	7	6	—	4	6	7	6
42	38	48	52	72	70	83	91	101	104	132	168	200	174	236	264	263	281	316
—	—	—	—	—	16	23	31	35	50	70	59	101	97	97	133	112	110	137
—	—	—	—	—	—	—	—	1	1	—	—	—	1	1	1	—	—	1
6	13	22	12	30	9	7	1	4	1	1	1	1	1	3	1	5	4	2
6	13	22	12	30	25	40	32	40	52	71	60	102	99	101	135	117	114	140
—	—	—	—	—	19	24	30	37	47	41	69	81	106	76	107	122	121	117
—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1	1	1	1
8	18	21	29	26	15	9	10	7	4	1	1	3	9	5	9	5	11	10
8	18	21	29	26	34	33	40	44	51	42	70	85	116	81	117	128	133	128
—	—	—	—	—	10	7	14	13	11	12	28	30	35	30	40	37	43	39
—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	1	—	1
8	5	10	9	6	10	6	3	2	3	—	4	1	1	5	—	1	7	3
8	5	10	9	6	20	13	17	15	14	13	33	31	36	35	40	39	50	43
—	—	—	—	—	—	1	4	1	2	5	4	10	8	9	4	9	15	6
—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	2	1	—	1
3	—	3	1	6	3	4	2	—	—	—	1	—	—	2	—	—	3	—
3	—	3	1	7	3	5	6	1	2	5	5	10	8	11	6	10	18	7
—	—	—	—	14	242	290	343	338	402	510	629	778	816	920	1,128	1,056	1,096	1,240
—	—	—	—	1	4	3	3	8	7	12	14	19	24	16	29	26	21	29
128	120	178	197	262	68	45	30	29	10	5	11	16	24	19	28	26	49	37
128	120	178	197	277	314	338	376	375	419	527	654	813	864	955	1,185	1,108	1,146	1,306
							3,655										12,796	

number of consecutive calender years each case has actually lived in, inclusive of the year of his birth and the year under review.

MEMBERS OF RELIEF ASSOCIATION

Class		Born in	1872	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882	1883	1884	1885
		Age	42	41	40	39	38	37	36	35	34	33	32	31	30	29
Eastern Division	A class		311	386	423	475	554	559	659	647	740	751	797	886	845	956
	B class		11	15	18	14	14	18	17	15	17	10	3	4	2	1
	C class		12	15	14	19	23	26	34	39	40	46	48	73	69	99
	Total		334	416	455	508	591	603	710	701	797	807	848	963	916	1,056
Central Division	A class		426	504	526	561	643	637	742	751	765	855	828	836	877	954
	B class		12	18	6	16	11	12	12	14	11	11	6	5	7	4
	C class		8	13	18	28	40	27	35	42	46	63	54	70	75	86
	Total		446	535	550	605	694	676	789	807	822	929	888	911	959	1,044
Western Division	A class		360	433	433	544	584	543	619	594	596	707	742	704	706	789
	B class		5	3	4	9	4	10	3	2	6	3	3	1	2	3
	C class		15	28	22	27	27	44	36	44	49	51	51	71	65	75
	Total		380	464	459	580	615	597	658	644	651	761	796	776	773	867
Kyushu Division	A class		160	202	195	207	231	266	265	313	290	308	323	381	393	370
	B class		—	1	2	2	1	2	—	—	3	1	1	—	2	—
	C class		6	9	6	12	10	15	15	18	14	18	24	31	38	35
	Total		166	212	203	221	242	283	280	331	307	327	348	412	433	405
Hokkaido Division	A class		140	194	201	192	232	217	257	246	289	283	311	322	288	345
	B class		2	4	2	12	3	11	4	4	7	6	2	2	1	2
	C class		18	11	20	18	24	27	33	34	29	33	34	40	45	61
	Total		160	209	223	222	259	255	294	284	325	322	347	364	334	408
Construction Offices	A class		42	44	53	59	65	63	71	55	62	68	49	59	85	113
	B class		—	—	1	3	1	—	—	1	—	2	—	3	2	—
	C class		3	6	4	4	6	1	4	4	11	5	11	9	5	8
	Total		45	50	58	66	72	64	75	60	73	75	60	71	92	121
Head Office	A class		9	11	12	14	14	14	17	16	14	13	6	23	16	16
	B class		—	—	—	—	1	1	—	—	—	—	—	1	—	—
	C class		—	1	1	1	1	1	1	1	3	1	—	3	1	1
	Total		9	12	13	15	16	16	18	17	17	14	6	27	17	17
Grand Total	A class		1,448	1,774	1,843	2,052	2,323	2,299	2,630	2,622	2,756	2,985	3,056	3,211	3,210	3,543
	B class		30	41	33	56	35	54	36	36	44	33	15	16	16	10
	C class		62	83	85	109	131	141	158	182	192	217	222	297	298	365
	Total		1,540	1,898	1,961	2,217	2,489	2,494	2,824	2,840	2,992	3,235	3,293	3,524	3,524	3,918

29,432

N.B.—The figures given under "age" do not represent the results computed on the ordinary twelvemonth basis; they are the

ACCORDING TO AGE.—*Continued.*

1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	Total
28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	
1,086	1,062	1,110	1,054	814	651	672	796	640	535	460	230	110	—	—	—	—	20,202
2	—	—	—	1	1	4	—	—	—	—	—	—	—	—	—	—	240
112	123	160	191	245	152	221	221	201	252	198	146	81	47	4	—	—	3,207
1,200	1,185	1,270	1,245	1,060	804	897	10,17	841	787	558	376	191	47	4	—	—	23,649
1,067	1,082	1,148	1,048	892	718	764	913	831	604	395	173	44	—	—	—	—	22,389
5	1	1	—	—	1	—	1	—	—	—	—	—	—	—	—	—	255
103	120	170	248	259	182	214	209	268	287	233	180	40	23	5	2	—	3,542
1,175	1,203	1,319	1,296	1,151	901	978	1,123	1,099	891	628	353	84	23	5	2	—	26,186
818	806	949	936	775	664	786	918	974	875	750	405	121	—	—	—	—	20,530
1	1	2	—	1	—	—	—	—	—	—	—	—	—	—	—	—	85
91	85	138	159	208	134	151	175	234	293	283	322	140	46	13	1	—	3,502
910	892	1,089	1,095	984	798	937	1,093	1,208	1,168	1,033	727	261	46	13	1	—	24,117
457	437	511	500	452	404	496	683	685	602	447	212	16	—	—	—	—	10,887
1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	22
34	42	62	80	95	82	76	118	143	174	214	249	42	3	1	—	—	1,810
492	479	573	580	547	486	572	801	828	276	661	461	58	3	1	—	—	12,719
364	360	374	372	300	258	317	380	324	274	221	139	28	—	—	—	—	8,225
5	2	2	1	—	—	2	—	—	—	—	—	—	—	—	—	—	80
68	63	73	89	108	79	65	85	98	113	114	106	66	19	9	1	1	1,823
437	425	449	462	408	337	384	465	422	387	335	245	94	19	9	1	1	10,128
82	89	92	84	64	66	64	81	52	46	41	26	11	—	—	—	—	2,035
1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	17
10	14	16	19	20	14	14	23	30	13	15	14	8	3	—	—	1	403
93	103	108	103	84	80	78	104	82	59	56	44	19	3	—	—	1	2,455
20	19	25	21	29	25	24	22	16	22	22	15	7	—	—	—	—	540
—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	10
1	2	3	3	5	7	5	6	4	7	1	4	12	6	4	1	—	119
21	21	29	25	34	32	29	28	20	29	23	19	19	6	4	1	—	669
3,894	3,855	4,209	4,045	3,326	2,786	3,123	3,793	3,522	2,958	2,236	1,200	337	—	—	—	—	84,808
15	4	6	2	2	2	6	1	—	—	—	—	—	—	—	—	—	709
419	449	622	789	940	650	746	837	978	1,139	1,053	1,021	389	147	36	5	2	14,406
4,328	4,308	4,887	4,806	4,268	3,438	3,875	4,631	4,500	4,097	3,294	2,221	726	147	36	5	2	99,923
42,909									10,528								

number of consecutive calender years each case has actually lived in, inclusive of the year of his birth and the year under review.

PRIVATE AND LIGHT RAILWAYS IN JAPAN PROPER

(ALSO TRAMWAYS)

PRIVATE AND LIGHT RAILWAYS.

GENERAL RESUME.

At the end of the fiscal year 1912-1913 the private railways granted provisional charters numbered 2, including one company newly created, with the total mileage amounting to 35 m. 22 ch. and the aggregate capital of 2,400,000 *yen*.

During the year under review altogether 67 light railways including one under prefectural management were granted charters, with the total mileage of 1,012 m. 62 ch. and the capital or cost of construction of 46,335,840 *yen*, while 3 private railways or tramways with the aggregate mileage of 113 m. 28 ch. and the total capital of 6,500,000 *yen* were converted into light railways. The light railways which had their charters invalidated during the year numbered 8 including one under prefectural management, with the total mileage of 53 m. 65 ch. and the aggregate capital of 2,910,000 *yen*. Consequently, the light railways in existence at the end of the year were 193 including three under prefectural management, one privately owned and 4 additionally managed by private railway companies, their total mileage amounting to 3,191 m. 40 ch. and the aggregate capital to 149,653,506 *yen*.

During the year under review only one private railway under definite charter was designated as light railway with the total mileage of 37 m. 60 ch. and the capital of 4,300,000 *yen*, so that the number of private railways under definite charters at the end of the year stood at 9 with the total mileage of 252 m. and the aggregate capital of 38,050,000 *yen*.

Summing up the figures given above there existed at the end of the year altogether 202 private and light railways with the total mileage of 3,443 m. 60 ch. and the aggregate capital or cost of construction of 187, 703,506 *yen*, and of these lines only 41 are opened to service with the total mileage of 797 m. 12 ch. exclusive of Government's a line 65 ch. in length leased to a private railway. Compared with the figures for the preceding year there was an increase of 60 in the number of companies, 991 m. 16 ch. in mileage and 56,161, 421 *yen* in the amount of capital or cost of construction, while the number of railways open to traffic increased by 9 with the total mileage of 192 m. 28 ch.

The rolling stock owned by the private and light railways open to traffic consisted at the end of the year of 197 locomotives, 898 carriages and 2,425 wagons showing an increase over the preceding year of 35 in locomotives, 133 in carriages and 628 in wagons. The locomotive mileage run was 3,996,633 m. the coal cosumed 64,100 tons valued at 344,821 *yen* and the oil used 607 *koku* valued at 13,647 *yen*, showing an increase over the preceding year of 342,412 m. or 9.4 per cent. in locomotive mileage, 7,000 tons or 12.3 per cent. valued at 51,613 *yen* or 17.6 per cent. in coal, and 95 *koku* or 18.6¾ valued at 2,716 *yen* or 24.8 per cent. in oil.

The train mileage reached 3,617,116 m. the passenger car mileage 1,790,578 m. exclusive of the electric car mileage and steam motor car mileage reaching 7,348,664 m. and 787,447 m., respectively, and the wagon mileage of 14,464,389 m. exclusive the electric car mileage amounting to 143,512. Compared with the preceding year train mileage increased by 294,887 m. or 8.9 per cent. and wagon mileage by 2,476,898 m. or 20.7 per cent. while passenger car mileage decreased by 10,982 m. or 20.5 per cent.

The passengers carried during the year numbered 32,296,898, the passenger mileage amounted to 233,493, 360 m., the fares to 3,717,520 *yen*, the luggage conveyed to 14,027 tons, the charges for same to 88,697 *yen*, the goods hauled to 3,615,176 tons, the goods mileag to 46, 553,659 m. the receipts accruing therefrom to 1,356,498 *yen* and the terminal charges to 222,206 *yen*. Compared with the preceding year passengers carried increased by 3,468,902 or 12 per cent, passenger mileage by 24,071,131 m. or 11.5 per cent., fares by 456,539 *yen* or 14 per cent., luggage by 4 277 tons or 43.9 per cent, charge for same by 26,961 *yen* or 43.8 per cent., goods by 631,512 tons or 21.2 per cent., goods mileage by 6,059,635 m. or 15 per cent., goods receipts by 355,720 *yen* or 35.5 per cent. while terminal charges decreased by 77,125 *yen* or 25.8 per cent., this being due to the abolition of terminal charge system among some of the private railways.

The traffic receipts reached 5,729,606 *yen* and the traffic expenses 3,061,049 *yen*, leaving balance of profit amounting to 3,668,557 *yen*. Compared with the preceding year traffic receipts increased by 807,633 *yen* or 16 per cent., traffic expenses by 659,666 *yen* or 27.4 per cent. and profit by 148,567 *yen* or 5.59 per cent.

The total number of the officials and employees amounted to 7,130, and the aggregate amount of their salary reached 107,630 yen per month, showing an increase over the preceding year of 1,755 in officials and employees and of 25,037 *yen* in their salaries.

2.—CHARTERS.

A. GRANTED.

During the year under review no cases of either grant or invalidation of charters occurred and consequently no change was witnessed in the list of private railways expcept those designated as light railways which are shown below:—

Name of Co.	Line			Capital	When granted definite charters	When designated as light railways
	Section	Mileage	Gauge			
		m. ch.	*ft. in.*	*yen*		
Chugoku...	Okayama-Tsuyama	35.20	3.6	4.300.000	—	June 5, 1912
	Okayama-Tadai	13.40				
	total	48.60				
Grand total		48.60	—	4.300.000	—	—

Light railways granted their charters or converted from private railways or tramways during the year under review are as follows:—

Name of Co.	Line			Capital	When granted or converted (△)
	Section	Mileage	Gauge		
		m. ch.	*ft.in.*	*yen*	
Chugoku	Okayama-Tsuyama	35.20	3.6	4,300,000	△June 5, 1912
	Okayama-Tadai	13.40			
	Oishi-Ashimori...	2.09			
	Total...	50.69			
Nansatsu	Ijuin-Higashiminamikata	30.00	3.6	1,000,000	Apr. 27, 1912
Keisei	Osaki-Chofu	11.00	3.6	500,000	,, 12, 1912
Geiyo	Oishi-Mihara	16.16	2.6	650,000	,, 13, 1912
Tsuyama	Sarayama-Higashikamo	16.00	2.6	700,000	,, 17, 1912
	Tsuyama-Innosho				
Karatsu-Kido	Hamazaki-Nanzan	1.78	3.6	34,840	,, 17, 1912
Usa-Sangu	Usa-Takada	5.10	3.6	200,000	,, 27, 1912
Hiei-Tozan	Shimosakamoto-Nemotochudo	3.53	3.6	500,000	May 1, 1912
Shinkizan Cable...	Seno-Tateno	1.29	3.6	200,000	,, 17, 1912
Shizuoka	Osato-Okabe	7.45	2.6	250,000	,, 23, 1912
Ina-Densha	Ina-Iida	29.75	3.6	1,500,000	June 12, 1912
Sangu	Toyohashi-Fukue	20.00	2.6	600,000	,, 12, 1912
Geiyo	Oishi-Aga...	27.16	2.6	1,050,000	,, 20, 1912
Kirishima	Nishi-Kokubu-Miyakonojo	27.20	3.6	1,090,000	,, 22, 1912
Takamatsu-Denki	Nagao-Matsubara	11.33	3.6	456,000	July 17, 1912
Kuriki...	Furuki-Kenshoji	10.15	2.6	220,000	,, 25, 1912
Kusatsu...	Karuizawa-Kusatsu	35.03	2.6	700,000	Aug. 26, 1912
Kyoto-Yuran-Sakudo	Maruyama-Awadaguchi	.25	3.3	100,000	△ ,, 6, 1912
Mayazan Cable	Harada-Maya	1.32	3.6	350,000	,, 15, 1912
Choshi-Yuran	Choshi-Takagami	3.55	3.6	150,000	,, 26, 1912
Akita	Odadate-Osaruzawa	16.50	3.6	1,000,000	,, 22, 1912
Ashiya...	Ashiya-Hirowatari	3.62	2.6	65,000	,, 30, 1912
Tonami...	Arakawa-Aojima	11.79	3.6	350,000	Sept. 3, 1912
Omi	Takamiya-Taga...	1.70	2.6	40,000	,, 9, 1912
Chobo	Tsubaki-Ogori	29.16	3.6	1,650,000	,, 12, 1912
Akashi...	Miki-Akashi	12.15	3.6	500,000	,, 12, 1912
Nanki	Kata-Shimokuwabara	23.36	2.6	1,000,000	,, 12, 1912
Hansen...	Ichinoseki-Kisenuma	38.00	2.6	1,500,000	,, 12, 1912
	Surizawa-Senmaya	6.00			
	Total...	44.00			
Anan	Komatsushimaura-Iwawaki	6.40	3.6	500,000	,, 25, 1912

Name of Co.	Line			Capital	When granted or converted (△)
	Section	Mileage	Gauge		
		m. ch.	*ft. in.*	*yen*	
In-yo-Denki	Sosha-Hirakawa	25.64	3.6	1.200.000	Oct. 22, 1912
	Matsuyama-Takayana	1.72			
	Total	27.56			
Seibi	Tsuyama-Katsuyama	21.40	3.6	1.000.000	„ 22, 1912
Awaji	Sunomoto-Fukura	12.00	3.6	450.000	„ 23, 1912
Chukan	Raikoji-Oshima	6.20	2.6	185.000	„ 25, 1912
Hokuen	Kakegawa-Tatsukawa	21.40	3.6	1.200.000	„ 25, 1912
Handen	Nakaizumi-Futamata	12.50	3.6	700.000	„ 26, 1912
Hitoyoshi	Omura-Yunomae	17.00	3.6	550.000	„ 26, 1912
Kudani	Aso-Ominami	3.64	2.6	100.000	„ 28, 1912
Buso	Abiko-Iwatsuki	21.24	3.6	1.000.000	„ 28, 1912
Takai	Takaya-Ihara	2.40	2.6	75.000	„ 28, 1912
Onsen	Kawadana-Yunotani	1.20	3.6	20.000	„ 29, 1912
Sekisan	Bofu-Yokoyama	23.00	3.6	1.500.000	„ 29, 1912
Kinkazan-Tozan	Kajikawa, summit of Mount Kinka	.72	3.6	120.000	Nov. 7, 1912
Oyu	Oita-Yunohira	19.30	3.6	400.000	„ 11, 1912
Shidara	Uchiki-Nagano	10.64	2.6	300.000	„ 15, 1912
Taigen	Shikada-Imamura	2.50	2.6	120.000	„ 15, 1912
Ishite	Dogo-Kubo	3.08	2.6	100.000	„ 15, 1912
Biyo-Denki	Kiyosu-Okoshi	9.40	3.6	850.000	„ 26, 1912
	Inazawa-Nagano	1.55			
	Inazawa-Shimosofue	4.56			
	Total	15.71			
Seto	Seidaiji-Sowake	14.48	2.6	500.000	„ 28, 1912
	Funagashi-Tsuitachiichi	1.61			
	Seto-Setoeki (on Government's line)	0.27			
	Total	16.56			
Ibi	Kamimakuwa-Ibi	7.20	3.6	450.000	„ 28, 1912
Funaki	Funaki-Ube	3.64	3.6	150.000	„ 30, 1912
Tojo	Ikebukuro-Mukihara	1.16	3.6	140.000	„ 30, 1912
Aibi	Inuyama-Fushimi	9.60	3.6	350.000	Dec. 6, 1912
Higo	Shiranui-Hamacho	23.40	3.6	1.000.000	„ 6, 1912
Seto-Denki	Seto-Kamishinano	2.50	2.6	750.000	„ 18, 1912
Tono	Nakanogo-Simochien	10.40	3.6	450.000	„ 18, 1912
Nobi	Nakatsugawa-Mori	31.40	3.6	1.500.000	„ 20, 1912
Shunan	Ogushi-Shimonogo	18.00	3.6	540.000	„ 20, 1912
Toshin	Komoro-Omi	19.00	2.6	700.000	Jan. 4, 1913
	Iwamurada-Omi	4.30			
	Iwamurada-Nakatsu	3.40			
	Total	26.70			
Saitama	Kuki-Konosu	12.00	3.6	450.000	„ 8, 1913
Settan	Kameoka-Yoshikawa	14.25	3.6	800.000	„ 10, 1913
Matsushiro	Haniu-Matsuhiro	4.70	2.6	150.000	Feb. 7, 1913
Tanhan	Kunoshita-Nishiwaki	8.00	3.6	300.000	„ 17, 1913
Nikkozan-Denki	Ohira-Yumoto	7.73	3.6	300.000	„ 20, 1913
Warashina	Hataori-Kiyosawa	8.00	2.6	250.000	„ 27, 1913
Toyama	Toyama-Sasatsu	9.75	3.6	400.000	Mar. 6, 1913
Shisei	Toba-Shimatsu	46.00	3.6	3.000.000	„ 7, 1913
	Kazusa-Hamashima	6.40			
	Total	52.40			
Sangu	Tennoji-Miwa	26.13	4.8½	1.800.000	„ 8, 1913
Okinawa (in prefectural management)	Wharf in Nawa Harbour	6.08	2.6	530.000	Feb. 20, 1913
	Mawashi-Itomitsu	6.72			
	Total	13.00			
Ako	Shioya-Kamigori	11.30	2.6	500.000	Mar. 28, 1913
	Sakagoe-Sakagoe-Minato	1.10			
	Total	12.40			
Katagami	Ibe-Miishi	9.00	2.6	300.000	„ 29, 1913
Grand total		1,012.62	—	46.335.840	

B. INVALIDATED.

Light railways which had their charters invalidated during the year under review are as follows:—

Name of Co.	Line			Capital	When granted or converted (*)
	Section	Mileage	Gauge		
		m. ch.	*ft. in.*	*yen*	
Fukushima-Keiben	Shikada-Fukushima...	3.75	2.6	160.000	June 15, 1911
Hiroshima-Kure-Denki ...	Kawarada-Aga...	2.18	3.6	1.400.000	June 28, 1911
Owned by M. Kimura ...	Shiroka-Shimonakashima	1.44	2.6	40.000	July 18, 1911
Jomei	Mita-Nabari	14.02	2.6	30.000	July 18, 1911
Beppu-Keiben	Shinowara-Beppu	3.26	3.6	140.000	Oct. 18, 1911
Soya-Keiben	Sosha-Yakake	11.20	2.6	330.000	Nov. 28, 1911
Hagi	Shomyoichi-Yamada	14.00	3.6	700.000	Dec. 1, 1911
Takata...	Nagasu-Takata...	3.40	2.6	110.000	Oct. 30, 1912
Total...		53.65	—	2.910.000	—

3.—LINES OPENED FOR TRAFFIC.

	Name of Co.	Section	Mileage	When opened
			m. ch.	
Private	Ashio	Omamamachi-Kamizuchi	11.70	Sep. 5, 1912
		Kamizuchi-Sawairi...	4.29	Nov. 11, 1912
		Sawairi-Ashio...	5.64	Dec. 31, 1912
		Total	21.63	
Light	Chiba ... ... (In prefectural management)	Kisaratsu-Kururi	14.06	Dec. 28, 1912
	Shimabara	Aino-Kamiyomachi	8.14	Oct. 10, 1912
	Aichi-Denki...	Tenmacho-Akihamae	.21	Aug. 1, 1912
		Onomachi-Tokoname	3.17	Mar. 29, 1913
		Total	3.38	
	Nagoya-Denki	Biwajimabashi-Nishiinden	10.18	Aug. 6, 1912
		Iwakura-Inuyamaguchi...	8.70	Aug. 6, 1912
		Inuyamaguchi-Inuyama...	.47	Aug. 6, 1912
		Nishiinden-Higashiichinomiya	.30	Jan. 25, 1913
		Total	20.05	
	Yoshino...	Yoshinoguchi-Yoshino	7.19	Oct. 25, 1912
	Kabuto-Keiben	Wakayamaguchi-Kabuto	5.55	June 16, 1912
	Shingu	Miwasaki-Katsuura...	6.24	Dec. 4, 1912
		Shingu-Miwasaki	3.27	Mar. 1, 1913
		Total	9.51	
	Echigo...	Hakusan-Yoshida	19.30	Aug. 25, 1912
		Kashiwazaki-Ishichi	11.40	Nov. 11, 1912
		Yoshida-Jizodo	5.09	Dec. 28, 1912
		Ishichi-Izumozaki	3.65	Dec. 28, 1912
		Total	39.64	
	Tobu	Ota-Aioi...	10.40	Mar. 19, 1913
	Sunzu-Denki...	Mishima-Ohito	10.51	Apr. 1, 1912
	Chuetsu...	Fushiki-Shimao	3.73	Apr. 4, 1912
		Shimao-Himi...	1.73	Sept. 19, 1912
		Total	5.66	
	Matsuzaka-Keiben	Matsuzaka-Oishi	12.46	Aug. 17, 1912
	Kagoshima-Denki	Takenohashi-Taniyama...	4.00	Dec. 1, 1912
	Okawa...	Wakatsu-Nawate	11.50	Dec. 30, 1912
	Senhoku-Keiben	Kogota-Ishinomaki	17.33	Oct. 29, 1912
Total			180.58	—

4.—PRIVATE AND LIGHT RAILWAYS AT THE END OF THE YEAR.

A. PRIVATE RAILWAYS UNDER DEFINITE CHARTERS.

Name of Co.	Line			Line not yet opened				Gauge	Capital		Approved date of establishment of company	When opened
	Section	Traffic mileage	Aggregate mileage	Section	Mileage	When granted charters	Estimated date of completion		Nominal	Paid up		
		m.ch.	*m.ch.*		*m.ch.*			*ft.in.*	*yen*	*yen*		
Narita	Sakura-Sawara	24.55	52.61	—	—	—	—	3.6	2.425.000	2.425.000	Feb. 27, 1895	Jan. 1, 1897
	Narita-Abiko	20.31										
	Total	45.06										
Chuetsue	Fushiki-Johana	23.06	33.51	—	—	—	—	3.6	1.050.000	1.050.000	Feb. 9, 1895	May. 4, 1897
	Fushiki-Himi (light railway)	5.66										
	Total	28.72										
Nankai	Namba-Wakayamashi	40.03	78.27	—	—	—	—	3.6	10.000.000	7.304.685	March 3, 1896	Oct. 1, 1897
	Wakayamashi-Junction with Government's line	.55										
	Tenkajaya-Tennoji	1.37										
	Total	42.15										
Tobu	Asakusa-Isezaki	70.22	120.69	Tatebayashi-Inubuse	7.00	March 4, 1912	March 22, 1915	3.6	9.000.000	3.800.000	Sept. 3, 1897	Aug. 27, 1899
	Kameido-Hikifune	2.11		Kuzu-Kikuzawa	18.24	Sept, 30, 1912	—		1.300.000			
	Kuzu-Koena (light railway)	9.56										
	Sano junction-Sano (Do.)	.18	26.24									
	Ota-Aioi (Do.)	10.40										
	Total	92.67										
Hakatawan	Saitozaki-Umi	15.30	23.62	—	—	—	—	3.6	2.075.000	1.535.500	June 13, 1900	Jan. 1, 1904
	Sakado-Shime	1.04										
	Total	16.34										
Yokohama	Higashikanagawa-Hachioji	26.35	37.76	—	—	—	—	3.6	3.500.000	3.140.000	March 23, 1905	Sept. 23, 1908
	Higashikanagawa-Umikanagawa	.65										
	Total	27.20										
Ashio	Aioi-Ashio	25.56	30.27	Ashio-Motoyuma	2.53	Jan. 31, 1910	March 3, 1915	3.6	2.000.000	2.000.000	Jan. 31, 1910	April 15, 1911
		.65										
—	—			Shibuya-Hiranuma	15.16	Jan. 9, 1911	Jan. 10, 1914	4.8½	3.500.000	700.000	Jan. 9, 1911	—
				Chofu-Kamata	3.66							
				Himonya-Shinjiku	4.60	Nav. 22, 1912	Nov. 21, 1914					
				Total	23.62							
Tojo	—			Otsuka-Shibukawamachi	76.16	Nov. 16, 1912	Dec. 9, 1917	3.6	4.500.000	450.000	Nov. 16, 1912	—
				Ikebukuro-Mukaihara	1.16	Nov. 30, 1912	—	3.6				
				Total	77.32							
Total		252.10	351.29	—	129.11	—	—	—	38.050.000	—	—	—

B. PRIVATE RAILWAYS UNDER PROVISIONAL CHARTERS.

Name of Co.	Line opened			Line not yet opened	Mileage	When granted charters	Estimated date or period of completion	Gauge	Capital		Approved date of establishment	When opened
	Section	Route mileage	Track mileage	Section					Nominal	Paid up		
		m. ch.	*m. ch.*		*m. ch.*			*ft. in.*	*yen*	*yen*		
Sokai	—	—	—	Yokohama-Zoshi	32.78	Jan. 9, 1909	—	3.6	1,800,000	—	—	—
Musashi-Dnki	—	—	—	Hiranuma-Horaimachi	2.24	May 16, 1910	Aug. 19, 1912	4.8½	600,000	—	—	—
Total	—	—	—	—	35.22	—	—	—	2,400,000	—	—	—

C. LIGHT RAILWAYS.

Name of Co.	Line opened			Line not yet opened				Gauge	Capital		Approved date of establishment	When opened
	Section	Traffic mileage	Aggregate mileage	Section	Mileage	When granted charters	Estimated date of completion		Nominal	Paid up		
		m. ch.	*m. ch.*		*m. ch.*			*ft. in.*	*yen*	*yen*		
Chugoku	Inari-Inariyama ... ... 1.40 Okayama-Tsuyama ... ... 35.20 Okayama-Tadai ... ... 13.40 Total 50.20		59.50	Oishi-Ashimori	2.09	April 27, 1912	April 14, 1914	2.6 3.6	4,300,000	4,300,000	June 5, 1912	May 1, 1911
Iyo	Takahama-Yokogawara ... ... 14.11 Tachibana-Morimatsu ... ... 2.63 Komachi-Ichibancho ... ... 3.28 Matsuyama-Gunchu ... ... 6.56 Total 26.78		30.14	—	—	—	—	2.6 2.6 3.6 2.6	1,200,000	900,000	Dec. 19, 1885	Oct. 23, 1887
Ome	Tachikawa-Hinatawada	13.00	13.71	—	—	—	—	3.6	750,000	550,000	June 21, 1892	Nov. 19, 1894
Kawagoe	Kokubunji-Kawagoe	18.36	21.70	—	—	—	—	3.6	500,000	402,000	,, 21, 1892	Dec. 21, 1894
Tobu	Kuzu-u-Koena ... ... 9.56 Sano-Sano Junction ... ... .18 Ota-Aioi... ... ... 10.40 Total 20.34		26.24	Inubushi-Tatebayashi ... ... Kuzuu-Kikuzawa ... ... Kasakake-Iwajiku	7.00 18.24 1.16	Mar. 4, 1912 Sep. 30, 1912 July 18, 1911	— — Jan. 31, 1914	3.6 3.6 3.6	1,300,000	—	Apr. 23, 1893	Mar. 20, 1894
Kotsuke	Takazaki-Shimonita	21.00	22.37	—	—	—	—	2.6	525,700	464,363	Dec. 27, 1895	May 10, 1897
Toyokawa	Yoshida-Nagashino ... ... 17.30 Inamachi branching point-Funamachi... ... ... .31 Total 17.61		22.43	—	—	—	—	3.6	1,100,000	1,100,000	Jan. 24, 1896	July 15, 1897

Name of Co.	Line opened			Line not yet opened				Capital	Capital		Approved date of establishment	When opened
	Section	Route mileage	Track mileage	Section	Mileage	When granted charters	Estimated date of completion		Nominal	Paid up		
		m. ch.	*m. ch.*		*m. ch.*			*ft. in.*	*yen*	*yen*		
Omi	Hikone-Kibugawa...	26.01	30.37	Takamiya-Taga	1.53	Sep. 12, 1912	—	3.6	1,100,000	1,099,955	July 16, 1896	June 11, 1898
Bisai	Yatomi-Shin-ichinomiya	15.46	20.03	Ichinomiya-Kitagata	5.30	Mar. 18, 1912	Aug. 24, 1914	3.6	720,000	648,000	Oct. 21, 1896	Apr. 3, 1898
				Oku-Okoshi	1.60							
				Total	7.10							
Jobu	Kumagaya-Chichibu	21.04	25.77	Motonogami-Omiya	7.64	Feb. 16, 1911	Feb. 18, 1913	3.6	1,000,000	759,647	Nov. 12, 1398	Oct. 7, 1901
Ryugasaki	Ryugasaki-Sanuki	2.64	3.04	—	—	—	—	2.6	91,000	74,034	Apr. 5, 1899	Aug. 14, 1890
Kanan...	Kashiwabara-Nagano	10.22	12.13	—	—	—	—	3.6	350,000	330,000	,, 7, 1900	May 11, 1900
Mito	Mito-Ota...	12.11	13.67	—	—	—	—	3.6	230,000	230,000	Aug. 20, 1901	Oct. 21, 1902
Sunzu-Denki ...	Mishima-Ohito	10.51	12.32	—	—	—	—	3.6	600,000	600,000	July 10, 1907	Apr. 1, 1912
Koya-Tozan ...	Shiomizaki-Nagano	17.31	22.68	Nagano-Hashimoto	10.24	Feb. 16, 1911	Feb. 13, 1914	3.6	2,000,000	830,000	Nov. 7, 1907	Nov. 16, 1907
Kosaka	Kozaka-Odachi	14.03	22.46	—	—	—	—	2.6	1,000,000	100,000	Apr. 14, 1909	May 7, 1909
	Shigenai-Futatsuya	2.21										
	Total	16.24										
Shimabara	Isahaya-Ainomura	7.54	17.11	Kamiyomachi-Omito	5.24	Apr. 16, 1911	Sep. 14, 1913	3.6	800,000	619,395	Mar. 19, 1909	June 20, 1911
	Ainomura-Kamiyomachi	8.14		Omito-Minatomachi	5.07							
	Total	15.68		Total	10.31							
Chiba (Prefectural management) ...	Kashiwano-Machida	9.10	45.65	—	—	—	—	3.6	726,425	—	Aug. 31, 1910	May 9, 1911
	Narita-Tako	14.49						2.0				
	Sanrizuka-Freight branch line ...	.26						2.6				
	Tako-Loading place at Kuriyamagawa	.40						2.0				
	Kisarazu-Kururi	14.06						2.6				
	Total	38.51										
Aichi-Denki ...	Temmamachi-Onomachi	14.39	18.77	Jingumae-Akihamae	.29	Sep. 23, 1910	Apr. 21, 1910	3.6	1,000,000	1,000,000	Sep. 23. 1910	Feb. 18, 1911
	Temmamachi-Akihamae	.21		Tokonamemachi-Uchimimachi ...	13.25							
	Onomachi-Tokoname	3.17		Yokosukamachi-Handamachi ...	8.64	Aug. 20, 1912	—					
	Total	17.77		Atsuta-Higashimachi-Toyocho ...	2.72	Dec. 20, 1912	—					
				Atsuta-Higashimachi-Nawa	8.68	Feb. 18, 1913	—					
				Otakamachi-Narumimachi		Feb. 18, 1913	—					
				Total	34.12							
Uonuma	Shinraikoji-Ojiya	8.06	8.06	—	—	—	—	2.6	200,000	199,588	Oct. 4, 1910	Sep. 14, 1911
Tosan-Denkikido	Imahashi-Shide	7.52	8.27	Nishihamacho-Higashi-hama	2.44	Feb. 15, 1911	Apr. 2, 1913	4.8½	1,000,000	777,970	Feb. 15, 1911	Nov. 18, 1911
				Gobancho-Tamamocho...	.72	Nov. 1, 1911	—	4.8½	—	—	—	—
				Shido-Matsuo...	9.53							
				Total	13.09							

Nishio	Nishio-Okazaki	8.25	9.20	Nishio-Yoshida	5.44	Sep. 17, 1912	Sep. 19, 1913	2.6	300,000	255,000	Apr. 8, 1911	Oct. 30, 1911
Chobei Tanaka...	Suzuko-Ohashi	9.71	10.40	—	—	—	—	2.6	250,000	—	Nov. 2, 1911	Nov. 3, 1911
Hatsuse	Hatsuse-Sakurai	3.39	3.65	—	—	—	—	3.6	250,000	152,500	Feb. 10, 1912	Feb. 10, 1912
Nagoya-Denki ...	Oshikiri-Biwajimabashi	1.21	46.10	Nishibiwajimamachi-Tsushimamachi	8.49	Mar. 12, 1912	June 19, 1914	3.6	5,000,000	3,211,650	Mar. 29, 1912	Mar. 29, 1912
	Biwajimabashi-Nishi-inden	10.18										
	Iwakura-Inuyamaguchi	8.70										
	Inuyamaguchi-Inuyama	.47										
	Nishi-inden-Higashi-ichinomiya ...	.30										
	Total	21.26										
Minato...	—	—	—	Takeda-Minato	5.11	Feb. 16, 1911	Feb. 22, 1914	3.6	250,000	86,700	Feb. 16, 1911	—
Yoshino	Yoshinoguchi-Yoshino...	7.19	8.75	—	—	—	—	3.6	520,000	519,995	Sep. 5, 1910	Oct. 25, 1912
Tomo	—	—	—	Tomo-Fukuyama	7.71	Sep. 5, 1910	Mar. 22, 1914	2.6	200,000	167,000	„ 5, „	—
Kada-Keiben ...	Wakayama-Kabuto	5.55	6.52	—	—	—	—	—	200,000	180,000	Oct. 5, 1910	June 16, 1912
Kyoto-Dento ...	—	—	—	Fukui-Nakarai	22.57	Oct. 6, 1910	Mar. 3, 1914	3.6	7,000,000	4,375,000	„ 6, „	—
Ise	—	—	—	Tsu-Yokkaichi	19.66	„ 20, „	July 8, 1915	3.6	500,000	125,000	„ 20, „	—
				Wakamatsu-Kobemachi	2.48							
				Total	22.34							
Awa-Kyodokisen	—	—	—	Tokushima-Komatsushima	6.76	„ 22, „	„ 30, 1913	3.6	500,050	500,000	„ 22, „	—
Hachihei-Keiben	—	—	—	Hiratsuka-Hachioji	24.50	„ 24, „	—	4.8½	3,000,000	—	„ 24, „	—
Chuo	—	—	—	Kawaguchimachi-Iwatsuki	12.40	Nov. 5, 1910	Nov. 28, 1914	3.6	6,000,000	60,000	Nov. 5, 1910	—
Shimotui-Keiben	—	—	—	Shimotsui-Chayamachi...	13.55	„ 9, „	Feb. 8, 1914	2.6	300,000	149,825	„ 9, „	—
Tama	—	—	—	Sakai-Koremasa	5.11	„ 15, „	Dec. 27, 1913	3.6	350,000	55,615	„ 15, „	—
Yokkaichi	—	—	—	Yokkaichi-Komono	10.15	„ 17, „	Feb. 22, 1914	2.6	200,000	169,160	„ 17, „	—
Ihara-Kasaoka Keiben	—	—	—	Kasaoka-Ihara	11.77	Dec. 7, 1910	May. 1, 1914	2.6	250,000	100,000	Dec. 7, 1910	—
Hambi	—	—	—	Kamigori-Emi	17.27	„ 15, „	Dec. 20, 1914	3.6	1,000,000	100,000	„ 15, „	—
				Sarayama-Emi	17.69	Oct. 20, 1912	May 1, 1914	2.6				
				Total	35.16	—	—	—				
Shingu...	Shingu-Katsu-ura	—	11.34	—	—	—	—	3.6	6000,00	546,235	„ 22, „	Dec. 4, 1912
Usuki...	—	—	—	Usuki-Mie	21.32	Dec. 27, 1910	—	2.6	750,000	—	„ 27, „	—
Echigo...	Shiroyama-Yoshida	19.30	49.48	Izumozaki-Jizodo	10.26	Mar 15, 1911	July 3, 1914	3.6	1,500,000	1,275,000	Jan. 24, 1911	Aug. 25, 1912
	Kashiwazaki-Ishichi	11.40										
	Yoseida-Jizodomae	5.09										
	Ishichi-Izumozaki...	3.65										
	Total	39.64										
Banshu	—	—	—	Takasago-Nishiwaki	25.33	Jan. 25, 1911	Mar. 6, 1914	3.6	1,800,000	1,238,230	„ 25, „	—
				Kunikane-Miki	4.29							
				Awo-Hojo	8.60							
				Total	38.42							

Name of Co.	Line opened			Line not yet opened				Gauge	Capital		Approved date of establishment	When opened
	Section	Route mileage	Track mileage	Section	Mileage	When granted charters	Estimated date of completion		Nominal	Paid up		
		m. ch.	*m. ch.*		*m. ch.*			*ft. in.*	*yen*	*yen*		
Ikomayama... ...	—	—	—	Kashiwabara-Momma	12.78	Feb. 17, 1911	—	3.6	700,000	—	Feb. 17, 1911	—
Tohi	—	—	—	Yabegawa-Waifu	37.00	„ 25, „	—	3.6	1,000,000	100,000	„ 25, „	—
Hokubu	—	—	—	Habu-Kumagaya	9.18	„ 25, „	—	3.6	200,000	39,950	„ 25, „	—
Odawara-Denki...	—	—	—	Yumoto-Miyagino	4.30	Mar. 1, „	Feb. 16, 1914	4.5	466,000	90,000	Mar. 1, „	—
Geibi	—	—	—	Hiroshima-Mitsugi...	43.58	„ 2, „	—	3.6	2,600,000	650,000	„ 2, „	—
Musashi-Denki ...	—	—	—	Azabu-Ninohashi-Setagaya	6.44	„ 11, „	—	3.6	350,000	70,000	„ 11. „	—
Banto...	—	—	—	Hachioji-Omama	64.37	„ 13, „	—	3.6	3,000,000	—	„ 13, „	—
Uwajima-Keiben	—	—	—	Yahata-Asahimura...	10.55	„ 27, „	Mar. 12, 1914	2.6	400,000	136,350	„ 27, „	—
Yoro	—	—	—	Kuwana-Haginaga...	35.40	„ 28, „	June 21, 1915	3.6	1,500,000	446,910	„ 28, „	—
Chuetsu	Fushiki-Himi	5.66	6.51	—	—	—	—	3.6	200,000	200,000	Apr. 1, „	Apr. 4, 1912
Shinano	—	—	—	Matsumoto-Omachi	21.34	Apr. 5, 1911	Nov. 25, 1914	3.6	600,000	150,000	„ 5, „	—
Miyazaki-Keiben.	—	—	—	Ota-Utsumi	13.27	„ 18, „	Sep. 14, 1913	3.6	500,000	125,000	„ 18, „	—
Tsukuba	—	—	—	Tsuchiura-Shimodachi	24.55	„ 20, „	—	3.6	900,000	—	„ 20, „	—
Nagaoka	—	—	—	Nagaoka-Teradomari	16.66	„ 24, „	—	2.6	500,000	—	„ 24, „	—
Kisei-Keiben ...	—	—	—	Oka-Nigo	35.48	„ 25, „	—	3.6	1,500,000	—	„ 25, „	—
Kurate-Keiben ...	—	—	—	Kiyase-Kazuki	2.31	„ 27, „	Aug. 27, 1913	3.6	150,000	111,250	„ 27, „	—
Hichiku	—	—	—	Ohara-Arao	9.40	May 5, „	—	3.6	500,000	—	May 5, „	—
Matsuzaka	Matsuzaka-Oishi	12.46	13.50	Koimano-Oishi	1.00	June 6, „	Aug. 30, 1913	2.6	400,000	399,775	June 6, „	—
Miyajima-Tozan	—	—	—	Onishi-Yayama	1.25	„ 6, „	—	3.6	250,000	25,000	„ 6, „	—
Tawaramoto ...	—	—	—	Tawaramoto-Oji	6.64	„ 7, „	—	3.6	200,000	—	„ 7, „	—
Aichi	—	—	—	Chigusa-Inuyama	15.47	„ 12, „	—	.6	800,000	80,000	„ 12, „	—
Sasayama	—	—	—	Sasayama-Ajioka	2.40	„ 12, „	—	3.6	80,000	—	„ 12, „	—
Himeji	—	—	—	Himeji-Kamioka	10.45	„ 15, „	—	3.6	500,000	—	„ 15, „	—
Yamazaki-Keiben	—	—	—	Kamioka-Kato	10.25	„ 15, „	—	3.8½	500,000	—	„ 15, „	—
Fuji-Minobu ...	—	—	—	Omiya-Kofu	49.24	„ 23, „	—	3.6	—	—	—	—
				Kajima-Omiya	6.27	Dec. 5, 1912	June 20, 1914	3.6	4,000,000	400,000	June 23, 1911	—
				Total	55.51							
Monoura	—	—	—	Yamaguchi-Monoura	4.34	June 26, 1911	Nov. 13, 1913	3.6	400,000	40,000	„ 26, „	—
Onsenkaiyu ...	—	—	—	Beppu-Okoshi	9.10	„ 26, „	—	3.6	1,500,000	—	„ 26, „	—
Oyama-Keiben ...	—	—	—	Hiratsuka-Isehara	5.56	„ 28, „	—	2.6	100,000	—	„ 28, „	—

Ehime	—	—	—	Nakacho-Yahatahama	37.24	June 28, 1911	—	3.6	2,000,000	—	June 28, 1911	—
				Yahatahama-Kisuki	1.56							
				Total	39.00							
Ube-Keiben ...	—	—	—	Ube-Atsumina	4.13	„ 28, „	Aug. 27, 1913	3.6	150,000	37,500	„ 28, „	—
Kikuchi	—	—	—	Waifu-Otsu	11.00	„ 1, „	—	3.6	500,000	—	July 1, „	—
Iwate-Keiben ...	—	—	—	Hanamaki-Kamigo	41.37	„ 5, „	July 3, 1915	2.6	1,000,000	343,565	„ 5, „	—
Mikawa	—	—	—	Chiryu-Ohama	11.52	„ 18, „	Mar. 24, „	3.6	—	—	—	—
				Chiryu-Agemo	9.30	Oct. 21, „	—	3.6	500,000	125,000	July 17, 1912	—
				Total	21.02	—	—	—	—	—	—	—
Wakayama-Suiryokudenki	—	—	—	Hashimoto-Koya	13.10	July 18, „	—	3.6	2,000,000	—	July 18, 1911	—
Tateyama-Keiben	—	—	—	Namekawa-Gohyakkokumachi ...	9.40	„ 18, „	Feb. 26, 1914	2.6	320,000	192,000	„ 18, „	—
Shinminato-Keiben	—	—	—	Yasuuchi-Shinminato	19.04	„ 18, „	—	—	700,000	—	„ 18, „	—
Hideu	—	—	—	Takee-Ajin	12.59	„ 18, „	May 28, „	2.6	300,000	30,000	„ 18, „	—
Yabakei	—	—	—	Toyota-Shiroi...	15.33	„ 28, „	—	2.6	650,000	162 500	„ 28, „	—
Kagoshia-Denkikido ...	Takenohashi-Taniyama	4.00	8.24	—	—	—	—	4.8	1,000,000	250,000	Aug. 3, „	Dec. 1, 1912
Choshu	—	—	—	Ikuno-Fukagawa	47.62	Aug. 4, „	Apr. 27, 1916	3.6	1,500,000	292,340	„ 4, „	—
Chubi-Keiben ...	—	—	—	Chaya-Sosha	10.13	„ 12, „	—	3.6	350,000	—	„ 12, „	—
Okawa...	Wakatsu-Nawate	11.50	13.33	Shimowakatsu-Wakatsu	.55	„ 7, „	Aug. 16, 1913	2.6	250,000	250,000	„ 17, „	Dec. 30, 1912
				Nawate-Kurume								
Ichihata-Keiben	—	—	—	Imaichi-Higashi	13.00	„ 21, „	—	2.6	400,000	100,000	„ 21, „	—
Seibi-Keiben ...	—	—	—	Fukuyama-Takaya...	18.55	„ 21, „	Feb. 24, 1915	2.6	700,000	45,000	„ 21, „	—
				Kawaminami-Fuchu								
Sun-en	—	—	—	Yaizu-Nakaizumi	41.64	„ 22, „	May 13, 1916	2.6	1,200,000	120,000	„ 22, „	—
Senhoku-Keiben	Kogoda-Ishinomaki	17.33	18.73	Tome-Tsuidachi	21.20	„ 23, „	Feb. 21, 1914	2.6	1,000,000	400,000	„ 23, „	Oct. 28, 1912
Toso	—	—	—	Fujieda-Kawasaki	12.32	„ 28, „	June 30, 1914	2.6	300,000	75,000	„ 28, „	—
Tamashima-Keiben	—	—	—	Nagao-Tamashimamachi	1.51	„ 29, „	Dec. 25, 1913	3.6	90,000	22,500	„ 29, „	—
Kinfuku-Keiben .	—	—	—	Kanazawa-Fukumitsu	12.60	Sep 9, „	—	3.6	500,000	—	Sep. 9, „	—
Kokura	—	—	—	Adachi-Kumata	30.26	„ 9, „	Mar. 7, 1914	3.6	3,500,000	1,169,190	„ 9, „	—
				Tomino-Haramachi								
				Shirakane-Soeda	3.00	Oct. 13, „	Aug. 27, 1913	3.6				
				Total	38.26	—	—	—				
Takeoka-Keiben	—	—	—	Takeu-Okamato	5.65	Sep. 28, „	June 25, 1914	2.6	100,000	25,000	„ 28, „	—
				Takeu-Asahi	6.65	Mar. 26, 1913	—	2.6				
				Total	12.50	—	—	—				
Konan	—	—	—	Kaneda-Yokaichi	5.32	Sep. 30, „	Sep. 26, 1913	3.6	150,000	136,250	„ 30, „	—
Ujima...	—	—	—	Hachiya-Tohara	10.55	„ 30, „	Nov. 2, 1914	2.6	200,000	79,735	„ 30, „	—
Nangu-Keiben ...	—	—	—	Furue-Shikaya	6.20	Oct. 7, „	—	—	180,000	18,000	Oct. 7, „	—
Senju	—	—	—	Senju-Kawaguchi	6.40	„ 18, „	—	3.6	300,000	30,000	„ 18, „	—

Name of Co.	Line opened			Line not yet opened				Gauge	Capital		Approved date of establishment	When opened
	Section	Route mileage	Track mileage	Section	Mileage	When granted charters	Estimated date of completion		Nominal	Paid up		
		m.ch.	*m.ch.*		*m.ch.*			*ft.in.*	*yen*	*yen*		
Beppu-Keiben ...	—	—	—	Kakogawa-Beppu	3.26	Oct. 18, 1911	—	3.6	140,000	--	Oct. 18, 1911	—
Musashino	—	—	—	Sugamo-Hanno	24.70	„ 18, „	—	3.6	1,000,000	250,000	„ 18, „	—
Seibu-Keiben ...	—	—	—	Hachioji Omiya	27.00	„ 30, „	—	3.6	1,500,000	—	„ 30, „	—
Joso	—	—	—	Shimodachi-Torite...	32.10	Nov. 1, „	Nov. 3, 1915	3.6	1,000,000	397,935	Nov. 1, „	—
Nogami-Keiben..	—	—	—	Higata-Higashinogami	5.40	„ 10, „	—	3.6	200,000	--	„ 10, „	—
Yagake-Keiben ...	—	—	—	Kitagawa-Yagake	3.20	„ 28, „	—	2.6	80,000	—	„ 28, „	—
Hambi-Shisen ...	—	—	—	Makuyama-Shigu	15.00	„ 28, „	—	3.6	1,000,000	—	„ 28, „	—
Sattc	—	—	—	Kuki-Toyooka	6.12	Dec. 1, „	—	3.6	200,000	—	Dec. 1, „	—
Shinsan	—	—	—	Shinkawa-Asuke	35.40	„ 5, „	Dec. 17, 1913	3.6	1,300,000	130,000	„ 5, „	--
Awa-Denkikido..	—	—	—	Dekijima-Kamo	1.50	—	—	4.8½	—	—	—	—
				Ojin-Muya	7.36	„ 23, „	—	3.6	400,000	40,000	Dec. 23, „	—
				Total	9.06							
Tenri-Keiben ...	—	—	—	Tomigo-Tambaichi	5.40	Jan. 4, 1912	—	3.6	250,000	25,000	Jan. 4, 1912	—
Mifune	—	—	—	Kasuga-Takikawa...	8.48	„ 10, „	—	3.6	500,000	50,000	„ 10, „	—
Hokusei	—	—	—	Kuwana-Ageki	13.08	„ 16, „	Mar. 2, 1915	2.6	250,000	25,000	„ 16, „	—
Higashiosaka-Keiben	—	—	—	Minamino-Kori	3.60							
				Ichimura-Nakasuji...	8.76	„ 27, „	—	3.6	700,000	—	„ 27, „	—
				Total	12.56							
Ano	—	—	—	Shinmachi-Akira	9.60	—	—	—	—	—	—	—
				Shinmachi-Takamiya	6.20	Feb. 3, „	—	2.6	230,000	23,000	Feb. 3, „	—
				Total	16.00							
Miyazaki (Prefectural management)	—	—	—	Miyazaki-Tsumamachi	16.64	—	July 31, 1914	3.6	644,810	--	—	—
				Obi-Aburatsu...	4.00	„ 10, „	„ 25, 1913	2.6	189,040	—	„ 10, „	—
				Total	20.64							
Mino-Denkikido .	—	—	—	Gifu-Kasamatsu	2.78	„ 23, „	—	3.6	320,000	—	„ 23, „	—
Arita-Keiben ...	—	—	—	Yuasa-Hasegawa	7.00	Mar, 8, „	—	3.6	250,000	25,000	Mar. 8, „	—
Chutatsu	—	—	—	Takao-Yokosuga	7.00	„ 9, „	May 28, 1914	2.6	100,000	10,000	„ 9, „	—
Hamamatsu-Keiben	—	—	—	Kon-ya-Kiga...	11.60							
				Kanasashi-Okuyama	5.00							
				Iitani-Ihira	2.65	„ 5, „	—	2.6	350,000	87,500	„ 5, „	—
				Total	19.45							
Matsushima-Keiben	—	—	—	Shiogama-Matsushima	8.00	„ 18, „	—	2.6	200,000	—	„ 18, „	—
Toba	—	—	—	Toba-Ugata	16.40	„ 20, „	—	2.6	300,000	—	„ 20, „	—

Chuno-Keiben ...	—	—	—	Arata-Kanayama	43.45	Mar.	25,	1912	—	2.6	1,500,000	—	Mar,	25,	1912	—
				Ota-Yoshida	5.50											
				Total	49.15											
Kariwa	—	—	—	Yasuda-Okano	10.00	„	27,	„	—	2.6	200,000	—	„	27,	„	—
Kamo-Keiben ...	—	—	—	Saijo-Aga	19.15	„	28,	„	—	2.6	800,000	—	„	28,	„	—
Nagara-Keiben ...	—	—	—	Nagara-Takatomi	3.60	„	30,	„	—	3.6	120,000	36,000	„	30,	„	—
Kihoku-Keiben...	—	—	—	Hayata-Kitagata	4.15	„	30,	„	—	3.6	250,000	25,000	„	30,	„	—
Nansatsu	—	—	—	Tokushige-Makurazaki...	30.00	Apr.	12,	„	—	3.6	1,000,000	250,000	Apr.	12,	„	—
Keisei-Keiben ...	—	—	—	Osaki-Chofu	11.00	„	13,	„	—	3.6	500,000	—	„	13,	„	—
Geiyo-Keiben ...	—	—	—	Takehara-Mihara	16.16	July	17,	„	—	2.6	650,000	—	„	17,	„	—
				Takehara-Aga	27.16	„	22,	„	—	2.6	1,050,000	—	June	22,	„	—
				Total	43.33		—		—	—	—	—		—		—
Tsuyama-Keiben.	—	—	—	Sarayama-Higashikamo	16.00	Apr.	17,	„	—	2.6	700,000	—	Apr.	17,	„	—
				Tsuyama-Innosho												
Karatsu-Kido ...	—	—	—	Hamasaki-Nanzan	1.78	„	27,	„	—	3.6	34,840	—	„	27,	„	—
Usasangu-Keiben.	—	—	—	Usa-Takata	5.10	May	1,	„	—	3.6	200,000	—	May	1,	„	—
Hieitozan-Keibendenki...	—	—	—	Shimo-Sakamoto-Nemotochudo ...	3.53	„	7,	„	—	3.6	500,000	—	„	7,	„	—
Shinkizan Cable.	—	—	—	Seno-Tateno	1.29	„	23,	„	—	3.6	200,000	—	„	23,	„	—
Shizuoka-Keiben.	—	—	—	Osato-Okabe	7.45	June	12,	„	—	2.6	250,000	25 000	June	12,	„	—
Ina-Denkikido ...	—	—	—	Ina-Iida	29.75	„	12,	„	Aug. 18, 1915	3.6	1,500,000	525,000	„	12,	„	—
Sangu-Tetsudo-Kisen	—	—	—	Toyohashi-Fukue	20.00	„	20,	„	—	2.6	600,000	—	„	20,	„	—
Kirishima-Keiben	—	—	—	Nishi-Kokubu-Miyakonojo	27.20	July	17,	„	—	3.6	1,090,000	—	July	17,	„	—
Takamatsu-Denkikido ...	—	—	—	Nagao-Matsubara	11.33	„	25,	„	—	3.6	456,000	—	„	25,	„	—
Kubiki	—	—	—	Naoetsu-Shimoyasukura	10.72	Aug.	6,	„	—	2.6	220,000	—	Aug.	6,	„	—
Kusatsu-Keiben..	—	—	—	Karuizawa-Kusatsu	35.03	„	6,	„	—	2.6	700,000	70,000	„	6,	„	—
Kyoto-Yuransakudo ...	—	—	—	Maruyama-Awadaguchi	.25	„	15,	„	—	3.3	100,000	—	„	15,	„	—
Mayasan Cable ...	—	—	—	Harada-Maya	1.32	„	26,	„	—	3.6	350,000	—	„	27,	„	—
Choshi-Yuran ...	—	—	—	Choshi-Takagami	4.50	„	22,	„	Mar. 23, 1912	3.6	150,000	37,500	„	22,	„	—
Akita	—	—	—	Odate-Osaruzawa	16.50	„	30,	„	—	3.6	1,000,000	—	„	30,	„	—
Ashiya	—	—	—	Ashiya-Shimakado...	3.62	Sep.	3,	„	—	2.6	65,000	16,250	Sep.	3,	„	—
Kakinami	—	—	—	Arakawa-Aojima	11.19	„	9,	„	—	3.6	350,000	67,975	„	9,	„	—
Chobo-Keiben ...	—	—	—	Tsubaki-Ogori	29.16	„	12,	„	—	3.6	1,650,000	—	„	12,	„	—
Akashi	—	—	—	Miki-Akashi	12.15	„	12,	„	—	3.6	500,000	—	„	12,	„	—
Nanki-Keiben ...	—	—	—	Minamiwauchi-Shimokitayama ...	23.36	„	12,	„	—	2.6	1,000,000	—	„	12,	„	—

Name of Co.	Line opened			Line not yet opened				Gauge	Capital		Approved date of establishment	When opened
	Section	Route mileage	Track mileage	Section	Mileage	When granted charters	Estimated date of completion		Nominal	Paid uy		
		m. ch.	*m. ch.*		*m. ch.*			*ft. in.*	*yen*	*yen*		
Hansen-Keiben...	—	—	—	Ichinoseki-Kisenuma	38.00	Sep. 25, 1912	—	2.6	1,500,000	—	Sep. 25, 1912	—
				Surizawa-Senmaya...	6.00							
				Total	44.00							
Anan	—	—	—	Komatsushima-Haura	6.40	Oct. 22, „	—	4.8½	300,000	—	Oct. 22, „	—
In-yo-Denkikeiben	—	—	—	Sosha-Hirakawa	25.64	„ 22, „	—	3.6	1,200,000	—	„ 22, „	—
				Matsuyama-Takayama	1.72							
				Total	27.56							
Seibi	—	—	—	Sarayama-Katsuyama	21.40	„ 23, „	—	3.6	1,000,000	100,000	„ 23, „	—
Awaji	—	—	—	Sunomoto-Fukura	12.00	„ 25, „	—	3.6	450,000	—	„ 25, „	—
Chukan	—	—	—	Raikoji-Shinsai	6.20	„ 25, „	—	2.6	185,000	—	„ 25, „	—
Hokuen-Keiben...	—	—	—	Kakegawa-Tatsukawa	21.40	„ 26, „	—	3.6	1,200,000	—	„ 26, „	—
Iwata...	—	—	—	Nakaizumi-Futamata	12.50	„ 26, „	—	2.6	600,000	—	„ 26, „	—
Hitoyoshi-Keiben	—	—	—	Omura-Yunomae	17.00	„ 28, „	—	3.6	550,000	—	„ 28, „	—
Kutani-Keiben ...	—	—	—	Aso-Ominami...	3.64	„ 28, „	—	2.6	100,000	—	„ 28, „	—
Buso	—	—	—	Abiko-Iwatsuki	21.24	„ 28, „	—	3.6	1,000,000	—	„ 28, „	—
Takai-Keiben ...	—	—	—	Takaya-Ihara...	2.40	„ 29, „	—	2.6	75,000	—	„ 29, „	—
Onsen...	—	—	—	Hanaka-Yudani	1.20	„ 29, „	—	3.6	20,000	—	„ 29, „	—
Sekisan-Keiben...	—	—	—	Bofu-Yuzuno	23.00	Nov. 7, „	—	3.6	1,500,000	—	Nov. 7, „	—
Kinkazan	—	—	—	Kajikawa-Top of Mt. Kinka ...	.72	„ 11, „	—	3.6	120,000	—	„ 11, „	—
Oyu	—	—	—	Oita-Yunohira	19.30	„ 15, „	—	3.6	400,000	—	„ 15, „	—
Shinraku	—	—	—	Uchiki-Nagano	10.64	„ 15, „	—	2.6	300,000	—	„ 15, „	—
Taigen	—	—	—	Shikada-Imamura	2.50	„ 15, „	—	2.6	120,000	—	„ 15, „	—
Ishite	—	—	—	Dogo-Matsuyama	3.08	„ 15, „	—	2.6	100,000	—	„ 15, „	—
Biyo-Denki ...	—	—	—	Kiyosu-Okoshi	9.40	„ 26, „	—	—	850,000	—	„ 26, „	—
				Inazawa-Nagano	1.55							
				Inazawa-Sofue	4.56							
				Total	15.71							

Seto-Keiben ...	—	—	—	Seidaiji-Kasaoka	14.48	Nov. 28, 1912	—	2.6	500,000	—	Nov. 28, 1912	—
				Funabashi-Tsuitachiichi	1.61							
				Seto-Setoeki	.27							
				Total	16.56							
Ibi-Keiben ...	—	—	—	Makuwa-Ibi	7.20	„ 28, „	—	3.6	450,000	—	„ 28, „	—
Funaki-Keiben ...	—	—	—	Funaki-Atsuminami	3.64	„ 30, „	—	3.6	150,000	—	„ 30, „	—
Tojo	—	—	—	Miyanoshita-Mukihara	1.16	„ 30, „	—	3.6	140,000	—	„ 30, „	—
Aibi	—	—	—	Inuyama-Fushimi	9.60	Dec. 6, „	—	3.6	250,000	—	Dec. 6, „	—
Higo	—	—	—	Shiranuhi-Hamacho	23.40	„ 6, „	—	3.6	1,000,000	—	„ 6, „	—
Seto-Denki ...	—	—	—	Seto-Shinano	2.50	„ 18, „	—	2.6	75,000	—	„ 18, „	—
Toyo	—	—	—	Toyooka-Shimochida	10.40	„ 18, „	—	3.6	450,000	—	„ 18, „	—
Nohi-Denki ...	—	—	—	Nakatsu-Shimoro	31.40	„ 20, „	—	3.6	1,500,000	—	„ 20, „	—
Shunan-Keiben ...	—	—	—	Ube-Ogori	18.00	„ 20, „	—	3.6	540,000	—	„ 20, „	—
Toshin-Keiben ...	—	—	—	Komoro-Omi	19.00	Jan. 4, 1913	—	2.6	700,000	—	Jan. 4, 1913	—
				Iwamurada-Miyoda	4.30							
				Iwamurada-Nakatsu	3.40							
				Total	36.70							
Saitama	—	—	—	Kuki-Konosu	12.00	„ 8, „	—	3.6	450,000	—	„ 8, „	—
Sessyu	—	—	—	Kameoka-Yoshikawa	14.25	„ 10, „	—	3.6	800,000	—	„ 10, „	—
Matsushiro-Keiben	—	—	—	Hanyu-Matsushiro	4.70	Feb. 7, „	—	2.6	150,000	—	Feb. 7, „	—
Tanhan	—	—	—	Kuge-Nishiwaki	8.00	„ 17, „	—	3.6	300,000	—	„ 18, „	—
Nikkozan-Denki .	—	—	—	Ohira-Yumoto	7.73	„ 20, „	—	3.6	300,000	—	„ 20, „	—
Warashina-Keiben	—	—	—	Hataori-Kiyosawa	8.00	„ 27, „	—	2.6	250,000	—	„ 27, „	—
Toyama-Keiben. .	—	—	—	Toyama-Sasazu	9.75	Mar. 6, „	—	3.6	400,000	—	Mar. 6, „	—
Shisei-Keiben ...	—	—	—	Toba-Shimatsu	46.00	„ 7, „	—	3.6	3,000,000	—	„ 7, „	—
				Kamihara-Hamashima	6.40							
				Total	52.40							
Sangu...	—	—	—	Tennoji-Miwa	26.12	„ 8, „	—	4.8½	1,800,000	—	„ 8, „	—
Okinawa (Prefectural management)	—	—	—	Wharf in Nawa Harbour-Dairi ...	6.45	„ 20, „	Oct. 17, 1915	2.6	530,000	—	„ 20, „	—
				Machishi-Itomitsu	7.53							
				Total	14.18							
Ako	—	—	—	Shioya-Kamigori	11.30	„ 28, „	—	2.6	500,000	—	„ 28, „	—
				Sakagoe-Sakagoe Harbour	1.10							
				Total	12.40							
Katayama-Keiben	—	—	—	Ibe-Miishi	9.00	„ 29, „	—	2.6	300,000	—	„ 29, „	—
Total	545.02	662.53	—		1,636.38	—	—	—	149,653,506	37,435,914	—	—

5.—CAPITAL ACCOUNTS.

A. CAPITAL ACCOUNTS OF PRIVATE RAILWAYS.

Name of Co.	Capital	Reserve fund	Capital Accounts					Outlays on Capital Account				
			Paid up Capital	Debentures	Other debts	Others	Total	Construction		Stores	Others	Total
								Open line	Unopen line			
	yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
Narita	2,425,000	73,256	2,425,000	—	—	70,677	2,495,677	2,465,841	—	14,428	15,408	2,495,677
Chuetsu	1,050,000	95,998	1,050,000	—	68,001	175,429	1,293,430	1,153,655	–	47,519	92,256	1,293 430
Nankai	100,000,000	368,300	7,304,085	2,000,000	2,010,000	522,465	11,836,550	9,526,935	—	219,814	2,089,801	11,836,550
Tobu	9,000,000	103,000	3,800,000	2,420.500	1,123,422	391,066	7,734,988	7,468,828	5,339	188,585	72,236	7,734.988
Hakatawan	2,075,000	26,450	1,535,500	—	—	6,735	1,542,235	1,438,572	—	1,832	101,831	1,542,235
Yokohama	3,500,000	11,709	3,140,000	—	510,000	89,526	3,739,526	3,734,962	—	—	4,564	3,739,526
Ashio	2,000,000	—	2,000,000	—	214,000	173,307	2,387,307	2,310.773	—	69,408	7,126	2,387,307
Total	30,050,000	678,713	21,254,585	4,420,500	3,925,423	1,429,205	31,029,713	28,099,566	5,339	541,586	2,383.222	31,029,713

B. BALANCE SHEET OF LIGHT RAILWAYS.

I. Assets

Name of Co.	Unpaid capital	Cost of construction		Stores	Temporary payments	Deposits	Cash	Negotiable bonds	Accounts receivable	Others	Total
		Open line	Line not yet opened								
	yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
Iyo	300,000	1,005,502	—	23,739	22,545	51,585	—	9,920	1,367	20,806	1,435,464
Ome	200,000	513,626	—	3,258	71,252	39,302	298	1,479	19,178	82,350	931,243
Kawagoe	98,000	457,061	—	8,340	—	48,060	1,289	—	10,039	—	622,789
Kotsuke	61,337	603,525	—	3,682	—	33,400	72	—	648	—	702,664
Toyokawa	—	1,130,590	—	8,000	22,795	48,165	—	5,000	7,949	—	1,222,499
Bisai	72,000	717,039	29,242	4,453	160	159,677	307	496	13,368	3,678	1,000,420
Omi	45	1,695,029	—	2,423	10,941	4,506	195	515	8,835	3,636	1,726,125
Kanan	20,000	415,707	—	4,713	787	14,664	38	900	5,851	—	462,660
Chugoku	—	4,214,176	—	35,046	15,571	217,854	27	6,643	30,300	64,806	4,584,423
Ryugasaki	16,966	77,863	—	239	2,722	546	15	—	—	7,399	105,750
Jobu	240,353	1,010,859	—	2,976	1,935	24,066	204	—	6,307	—	1,286,700
Mito	—	315,666	—	1,573	1,911	63,399	32	—	5,147	—	387,728
Sunzu-Denki	—	616,168	—	200	—	14,603	—	—	724	—	631,695
Koyatozan	1,170,000	1,187,748	34,183	3,836	6,321	—	335	3,650	14,891	2,822	2,423,786
Kosaka	900,000	1,089,400	—	17,367	51	—	—	—	21,070	—	2,027,888
Chiba (Prefectoral management)	—	776,734	—	—	—	—	17,704	—	—	69,209	863,647
Shimabara	180,605	680,796	169,140	16,767	29,316	205,552	1,090	—	9,870	465	1,293,601
Uonuma	412	256,337	—	3,341	349	—	103	—	3,166	5,750	269,658
Nishio	45,000	257,562	—	6,173	3,566	1,047	281	—	—	—	313,629
Kamaishi Coal line (leased from Government)	—	249,465	—	—	—	14,068	—	—	—	835	264,368
Tosan-Denki	222,030	726,988	37,583	4,096	34,165	54,850	249	—	480	234,842	1,315,283
Hatsuse	97,500	269,967	—	698	47,709	189	168	—	904	—	417,135
Aichi-Denki	—	820,446	75,524	103,727	9,540	42,297	34	4,862	6,242	165,699	1,228,374
Nagoya-Denki	—	1,830,245	359,219	216,079	135,034	—	673	8,392	—	—	2,549,842
Kabuto-Keiben	20,000	210,392	—	861	—	90	21	—	—	1,200	232,564
Matsuzaka-Keiben	225	521,253	15,704	536	25,300	865	172	—	7,524	—	571,579
Echigo	225,000	1,193,650	205,211	36,905	64,986	—	88	5,100	1,564	—	1,732,504
Yoshino	5	631,335	—	4,518	41,834	5,548	13,830	—	651	28,452	726,173
Senhoku-Keiben	600,000	400,764	4,022	1,637	48,734	3,179	226	—	—	1,165	1,059,727
Kagoshima-Denki	750,000	370,559	—	22,528	2,709	5,461	573	550	2	84,781	1,237,163
Shingu	53,765	560,092	—	12,084	12,243	4,056	15	—	1,570	5,858	649,683
Okawa	—	375,378	—	64	—	20,011	—	—	—	3,438	398,891
Total	5,273,243	25,181,922	929,828	549,859	612,676	1,077,040	38,039	47,707	177,647	787,694	34,675,655

B. BALANCE SHEET OF LIGHT RAILWAYS—*Continued.*

II. LIABILITIES.

Name of Co.	Capital	Bonds and loans	Legal reserve	Special reserve	Temporary receipts	Securities	Balance brought over from preceding year	Profits for the year under review	Dividends payable	Account payable	Others	Total
	yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
Iyo	1,200,000	80,000	67,700	6,500	4,248	8,821	12,759	43,900	726	10,810	—	1,435,464
Ome	750,000	50,000	22,250	46,899	—	—	12,567	33,038	—	16,489	—	931,243
Kawagoe	500,000	—	35,150	8,203	35	—	32,159	27,093	—	19,149	1,000	622,789
Kotsuke	525,700	151,000	6,478	—	—	2,592	1,224	12,163	844	644	3,019	702,664
Toyokawa	1,100,000	—	34,940	12,946	747	79	1,819	49,252	1,095	21,621	—	1,222,499
Bisai	720,000	205,000	14,400	—	—	10,286	198	24,217	1,262	25,057	—	1,000,420
Omi	1,100,000	—	24,360	—	2,620	1,448	6,334	26,083	508	17,772	547,000	1,726,125
Kanan	350,000	—	3,550	9,634	132	1,362	297	13,834	12	13,839	75,000	482,660
Chugoku	4,300,000	—	83,050	—	10,073	19,466	3,103	127,413	—	41,318	—	4,584,423
Ryugasaki	91,000	14,565	185	—	—	—	—	—	—	—	—	105,750
Jobu	1,000,000	230,000	7,000	13,428	944	—	3,113	15,576	1,863	14,776	—	1,286,700
Mito	230,000	85,744	11,580	28,757	1,113	—	2,257	17,291	—	10,986	—	387,728
Sunzu-Denki	600,000	—	—	—	12,026	—	—	19,327	—	—	342	631,695
Koyatozan	2,000,000	360,000	9,930	—	1,768	10,208	543	21,996	658	10,054	8,629	2,423,786
Kosaka	1,000,000	21,687	1,400	—	1,871	—	5,684	6,000	—	991,246	—	2,027,888
Chiba (Prefectural management)	719,125	—	—	—	—	—	—	—	—	—	144,522	863,647
Shimabara	800,000	400,000	—	—	—	1,300	—	4,137	2,664	—	85,500	1,293,601
Uonuma	200,000	58,609	—	541	—	—	—	207	—	460	9,841	269,658
Seibi	300,000	—	170	170	—	—	9	9,492	96	1,606	2,086	313,629
Kamaishi coal line (leased from Government)	250,000	13,533	—	—	—	—	—	835	—	—	—	264,368
Tosan-Denki	1,000,000	156,751	—	—	11,234	1,517	5,968	—	—	1,309	138,504	1,315,283
Hatsuse	250,000	156,601	1,700	—	—	908	—	2,689	4,421	816	—	317,135
Aichi-Denki	1,000,000	—	1,650	2,528	—	1,061	5,684	39,267	—	—	8,184	1,228,374
Nagoya-Denki	2,431,747	80,975	—	—	954	8,788	—	26,974	—	404	—	2,549,842
Kabuto-Keiben	200,000	23,500	—	—	—	—	—	8,007	—	1,057	—	232,564
Matsuzaka-Keiben	400,000	161,920	—	169	—	—	—	3,791	—	5,699	—	571,579
Echigo	1,500,000	215,148	—	1,271	272	5,100	6,750	2,586	—	1,377	—	1,732,504
Yoshino	52,000	163,273	—	—	—	21,613	2,473	10,051	—	8,763	—	726,173
Senhoku	1,000,000	47,000	—	615	430	—	—	7,854	—	3,828	—	1,059,727
Kagoshima	1,000,000	221,348	—	—	—	1,716	5,313	5,175	—	3,611	—	1,237,163
Shingu	600,000	40,410	—	—	58	1,619	—	6,402	—	1,194	—	649,683
Okawa	250,000	145,000	—	—	—	—	3,629	262	—	—	—	398,891
Totat	27,887,572	3,252,064	325,493	131,661	48,525	97,884	111,883	564,912	14,149	1,223,885	1,017,627	34,675,655

I.

	Name of Co.	Surveying expenses	Superintending expenses for works	Right of way	Earthworks	Bridges	Culverts	Drain pipes	Tunnels	Parmanent way	Stations	Wharfs
		yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
Private Railways	Narita	12,375	41,748	305,843	443,514	199,614	70,671	27,882	29,265	653,011	97,714	—
	Chuetsu	9,055	37,303	92,747	101,424	152,155	43,933	9,936	—	206,728	45,778	964
	Nankai	12,089	181,584	838,740	537,805	624,895	128,408	26,269	181,999	916,305	494,532	1,087
	Tobu	56,458	93,329	1,064,638	628,253	1,098,302	278,837	30,237	—	1,514,782	420,896	—
	Hakatawan	24,434	52,957	213,217	147,923	86,222	44,692	9,398	—	294,730	54,660	69,728
	Yokohama	21,385	131,271	867,279	436,474	335,415	128,630	18,520	93,751	580,986	151,480	—
	Ashio	59,354	120,014	128,597	771,515	227,145	36,155	10,495	167,084	341,265	64,847	—
	Total	—	—	—	—	—	—	—	—	—	—	—
Light Railways	Iyo	2,568	4,664	112,692	89,649	17,984	10,390	1,988	3,567	125,343	84,837	—
	Tobu	10,709	4,183	84,844	51,797	37,849	10,268	2,632	—	212,720	36,867	—
	Ome	1,853	4,895	61,927	26,021	3,150	927	4,128	—	160,614	20,018	—
	Kawagoe	1,520	4,339	53,655	29,908	16,625	2,809	1,593	—	144,531	19,227	—
	Kotsuke	2,910	12,203	42,742	100,953	135,763	15,919	2,618	29,003	91,204	18,509	—
	Toyokawa	4,856	20,916	172,165	112,993	195,821	12,860	6,225	—	204,326	26,409	—
	Bisai	4,751	9,271	165,922	34,576	20,794	30,051	7,511	—	192,125	50,031	—
	Omi	5,938	35,098	331,674	108,832	308,304	36,227	17,573	27,207	326,805	36,014	—
	Kanan	930	1,082	36,477	51,137	24,696	11,902	3,258	—	38,118	8,674	—
	Chugoku	14,670	64,533	548,951	1,021,413	389,999	139,460	18,862	340,478	562,184	160,641	—
	Ryugasaki	933	768	3,249	3,442	2,180	338	154	—	20,500	1,822	—
	Jobu	15,569	25,485	126,714	146,273	33,100	28,243	2,845	—	271,541	33,724	—
	Mito	1	—	1,546	2,149	4,361	210	231	—	965	7,731	—
	Sunzu-Denki	—	—	—	179	—	—	—	—	—	2,050	—
	Koyatozan	25,710	1,943	4,868	—	5,459	—	—	—	—	2,193	—
	Kozaka	4,642	53,544	57,779	140,825	143,915	7,990	5,450	178,432	203,683	38,462	—
	Chiba (Prerectural Management)	3,858	29,928	101,577	104,750	61,065	27,720	2,566	—	210,346	37,847	—
	Shimabara	46,999		186,022	102,578	82,893	—	16,221	9,878	208,364	32,643	—
	Uonuma	3,087	9,430	34,539	66,980	2,840	3,750	2,588	—	47,854	3,019	—
	Seibi	6,679		39,241	44,775	21,490	6,375	7,806	—	53,035	10,305	—
	Komaishi Coal Mine Line(Leased from Goverment)	1,890	—	2,469	40,554	54,842	—	—	—	56,142	11,732	—
	Tosan-Denki	23,750		85,561	43,913	50,605	12,726	4,243	—	132,972	14,222	—
	Hatsuse	1,500	2,500	39,597	58,141	18,486		—	—	45,085	1,224	—
	Aichi-Denki	4,406	29,844	256,651	79,664	59,578	9,078	7,921	—	184,917	12,861	—
	Nagoya-Denki	28,853	26,819	390,737	97,036	145,929	51,524	7,764	—	526,917	89,554	—
	Chuetsu	1,685	5,816	81,734	62,665	19,927	4,009	3,031	7,503	25,220	4,265	—
	Kabuto-Denki	2,667	4,201	43,702	29,764	8,575	2,787	1,607	—	54,508	11,021	—
	Matsuzaka-Keiben	16,840		105,001	90,647	54,805		10,764	—	108,259	22,927	—
	Echigo	9,294	20,840	252,302	187,978	26,535	37,641	18,521	—	493,651	54,235	—
	Yoshino	4,670	12,198	111,160	133,618	69,189	—	9,057	62,266	93,084	8,521	—
	Senhoku-Keiben	6,976	2,960	4,418	84,535	28,437	8,493	5,074	29,968	103,582	17,504	—
	Kagoshima-Denki	2,438	8,889	70,366	31,110	12,770	22,078	3,402	—	122,633	—	—
	Shingu	4,820	16,520	56,550	58,971	27,538	4,086	3,983	170,989	103,423	25,195	—
	Okawa	9,966	—	62,887	46,520	37,061	—	—	—	126,264	6,327	—
	Total	—	—	—	—	—	—	—	—	—	—	—
Grand total		—	—	—	—	—	—	—	—	—	—	—

	Name of Co.	Rolling stock	Machine shops	Sundry buildings	Transportation	Construction and train expenses	Tools etc. for construction	Fences and boundary posts	Telegraph and telephone wire laid	General expenses	Others	Total
		yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
Private Railway	Narita	370,689	6,333	30,598	40,805	18,354	1,359	2,494	13,716	97,380	2,476	2,465,841
	Chuetsu	165,531	4,440	80,302	16,485	4,288	534	1,742	4,645	38,674	—	953,664
	Nankai	1,576,294	115,169	125,280	—	10,343	1,121	18,288	637,910	459,779	1,847,942	8,735,839
	Tobu	1,126,394	19,782	60,795	158,259	33,898	6,509	21,912	53,162	177,999	—	6,849,432
	Hakatawan	230,691	2,967	24,882	5,007	7,120	25	1,569	5,585	160,725	2,040	1,438,572
	Yokohama	320,559	19,852	38,260	130,174	48,465	7,509	9,249	9,830	289,062	96,811	3,734,962
	Ashio	147,745	1,040	15,752	43,112	42,084	12,354	697	13,668	116,650	—	2,310,773
	Total	—	—	—	—	—	—	—	—	—	—	26,489,083
Light Railway	Iyo	169,004	8,758	25,338	2,366	—	—	514	28,991	16,850	300,000	1,005,502
	Tobu	55,012	1,025	2,693	15,845	6,513	127	265	6,677	7,361	77,349	624,735
	Ome	203,196	1,700	6,831	3,351	1,380	756	222	1,046	11,611	—	513,626
	Kawagoe	150,448	2,364	4,689	5,762	2,567	154	601	1,581	14,688	—	457,061
	Kotsuke	100,515	3,723	5,061	6,835	2,346	1,322	755	2,551	29,488	—	603,525
	Toyokawa	222,563	2,793	52,059	20,231	1,380	10,584	2,135	3,723	58,559	—	1,130,590
	Bisai	159,835	2,435	11,622	8,703	6,435	2,560	2,176	4,025	33,458	—	746,281
	Omi	205,271	2,584	9,733	15,767	11,197	10,905	2,073	5,628	138,169	—	1,695,029
	Kanan	53,547	619	386	1,009	3,854	579	674	935	10,882	166,948	415,707
	Chugoku	550,686	14,479	39,742	99,746	10,195	7,577	2,783	10,711	208,865	8,201	4,214,176
	Ryugasaki	22,991	—	3,022	1,219	—	202	12	288	16,743	—	77,863
	Jobu	156,310	1,595	35,687	24,260	10,679	3,086	944	4,523	90,181	—	1,010,859
	Mito	19,845	453	2,405	2	—	—	16	906	145	274,700	315,666	
	Sunzu-Denki	4,534	—	9,405	—	—	—	—	—	—	600,000	616,168
	Koyatozan	38,900	—	958	—	—	—	84	—	11,725	1,130,091	1,221,931
	Kosaka	187,709	3,048	23,094	4,741	12,381	2,127	673	8,228	12,677	—	1,089,400
	Chiba (Prefectural management)	86,312	6,980	35,924	1,197	—	1,814	—	11,713	3,499	19,638	776,734
	Shimabara	35,327	—	5,271	9,846	—	2,573	2,462	5,701	89,381	14,080	849,936
	Uonuma	33,240	—	1,226	7,210	3,730	4,050	500	1,551	25,821	4,022	256,337
	Seibi	38,547	—	7,045	2,142	—	—	239	2,126	17,757	—	257,562
	Kamaishi coal line	69,966	—	—	1,292	—	1,401	—	2,137	7,040	—	249,465
	Tosan-Denki	84,773	180	10,764	4,826	—	10	885	61,105	79,810	154,226	764,571
	Hatsuse	54,082	3,073	6,021	1,528	—	600	300	643	17,284	19,903	269,967
	Total	62,050	9,273	9,246	7,499	—	4,955	3,121	58,357	54,038	41,611	895,970
Grand total		430,014	27,874	4,553	—	—	2,136	724	158,305	130,077	70,648	2,189,464

A. . RESULTS OF TRAFFIC.

	Name of Railway	No. of Passengers carried	Weight of luggage carried	Weight of luggage carried	No. of pass. carried one mile	Weight of goods carried one mile	Receipts (fare)				
							Passenger	Luggage	Mail matter	Goods	Total
			ton	*ton*		*ton*	*yen*	*yen*	*yen*	*yen*	*yen*
Private Railway	Nairta	1,155,964	514	146,404	15,369,714	3,150,062	280,273 ○ 1,114	4,745	1,390	59,884 + 8,486 ○ 17,063	372,955
	Chuetsu	976,340	395	135,957	6,861,943	1,178,328	120,457 ○ 550	○ 3,182 12	1,328	44,601 + 13,152 ○ 12,040	195,322
	Nankai	11,378,943	4,740	393,422	78,830,320	6,567,729	981,575 ○ 1,926	33,946 ○ 329	3,273	140,533 + 25,836 ○ 5,087	1,192,505
	Tobu	2,161,937	1,075	670,734	31,082,680	10,827,254	501,312 ○ 2,906	11,124 ○ 182	2,892	313,105 + 33,343 ○ 21,851	886,715
	Hakatawan	217,071	45	332,507	1,078,837	3,666,570	21,288 ○ 5	310 ○ 1	—	130,429 + 26,001 ○ 516	178,550
	Ashio	241,491	83	60,847	1,893,787	866,006	37,315 ○ 153	678 ○ 44	218	27,637 + 5,374 ○ 514	71,933
	Total	16,131,746	6,852	1,739,871	135,117,281	26,255,909	1,942,220 ○ 6,654	53,985 ○ 568	9,101	716,189 + 112,192 ○ 57,071	2,897,980
Light Railway	Iyo	3,189,232	3,481	110,871	12,672,083	860,969	166,633 ○ 5,135	5,742 ○ 4,614	796	27,494 + 11,239 ○ 1,361	223,014
	Tobu (light railway)	196,436	44	62,406	845,709	419,678	16,596 ○ 19	196	194	16,623 + 6,892 ○ 13	40,443
	Ome	254,254	155	218,096	1,950,522	2,252,239	35,627 ○ 28	1,218 ○ 2	540	48,677 + 3,304 ○ 6,250	95,646
	Kawagoe	684,343	564	138,491	5,033,538	1,608,871	90,603 ○ 266	4,779 ○ 4	749	45,667 + 6,084 ○ 2,951	151,103
	Kotsuke	272,767	37	42,718	2,305,995	643,792	53,062 ○ 356	283	614	22,145 + 6,491	82,951
	Toyokawa...	949,912	230	81,101	6,518,900	709,456	115,544 ○ 878	1,671 ○ 277	714	26,447 + 7,956 ○ 8,865	162,352

Name of Railway	No. of passengers carried	Weight of luggage carried	Weight of goods carried	No. of passengers carried one mile	Weight of goods carried one mile	Receipts				
						Passenger	Luggage	Mail matter	Goods	Total
		ton	*ton*	*ton*	*ton*	*yen*	*yen*	*yen*	*yen*	*yen*
Bisai	649,645	173	62,410	3,581,607	584,046	73,137 ○ 507	1,256 ○ 2	630	15,934 + 3,557 ○ 7,353	102,376
Omi	663,200	497	67,504	4,399,669	721,460	101,732 ○ 350	3,463 ○ 3	1,071	27,876 + 4,364 ○ 1,517	140,376
Kanan	803,590	157	65,668	3,494,009	313,238	54,727 ○ 327	903	430	12,580 + 2,789 ○ 1,534	73,290
Chugoku	1,456,233	599	161,469	15,258,509	4,144,499	280,189 ○ 2,271	4,931 ○ 220	2,972	124,227 + 10,974 ○ 17,368	443,152
Ryugasaki	107,344	13	11,509	293,491	32,225	7,901 ○ 194	129	288	1,401 + 1,895	11,808
Jobu	312,696	117	123,102	3,258,346	1,050,867	65,798 ○ 15	1,043 ○ 30	1,125	29,782 + 5,741 ○ 2,111	105,645
Mito	229,064	139	49,697	1,987,423	554,480	35,613 ○ 86	1,232 ○ 7	612	18,472 + 4,762 ○ 5,814	66,598
Sunzu-Denki	541,563	180	37,180	3,082,535	259,650	59,497 ○ 437	1,033 ○ 13	600	10,581 + 2,032 ○ 1,636	75,829
Izu	133,649	35	10,123	765,387	73,677	15,136 ○ 187	213 ○ 1	150	2,296 + 1,149 ○ 111	19,243
Koyatozan	1,382,491	105	122,512	9,531,907	1,174,412	105,834 ○ 1,411	887	337	33,084 + 6,766 ○ 114	148,433
Kosaka	128,322	40	196,968	1,511,562	2,090,472	30,358 ○ 323	554 ○ 2	720	95,929 + 13,192 ○ 31	141,109
Chiba (Prefectural management)	319,323	97	40,798	2,033,675	356,188	44,014 ○ 8,766	720	348	12,420 + 3,878 ○ 30	70,206
Shimabara	200,680	53	6,221	1,083,440	33,372	20,998 ○ 77	472 ○ 11	186	1,667 + 626 ○ 420	21,457
Uonuma	123,323	3	13,801	794,258	116,622	21,192	132 ○ 84	544	4,109 + 3,256	29,317
Seibi	230,654	154	2,239	1,426,372	17,983	35,662 ○ 215	○ 958 ○ 21	638	1,728 + 60	39,282
Kamaishi coal line	41,622	5	213,607	333,750	1,984,867	6,653	77 ○ 26	—	46,626	53,382

Railway

Tosan-Denki	666,457	—	—	2,506,798	—	45,372 ○ 190	—	—	—	45,562
Hatsuse	276,191	22	—	857,339	—	25,980 ○ 38	41	—	—	26,059
Aichi-Denki	489,816	21	—	3,601,072	—	75,210	964 ○ 43	92	—	76,309
Nagaya-Denki	855,014	108	5,029	3,178,259	60,562	61,944 ○ 8	573 ○ 3	—	+ 2,278 + 656	65,462
Chuetsu (light railway)	245 300	33	4,354	1,156,407	24,235	19,749 ○ 17	209 ○ 2	279	+ 1,543 + 434 ○ 390	22,623
Kada-Denki	177,190	42	681	718,575	3,379	16,732	77	—	+ 532 + 225	17,566
Matsuzaka-Keiben	61,211	4	4,198	469,364	42,109	8,742 ○ 6	39 ○ 2	—	+ 859 + 133 ○ 7	9,788
Echigo	123,942	23	2,305	138,909	20,042	26,049 ○ 20	328 ○ 116	355	+ 1,402 + 565 ○ 6	28,841
Yoshino	196,272	23	16,119	1,257,825	98,805	28,700 ○ 121	221 ○ 7	427	○ 5,521 2,339	37,336
Senhoku-Keiben	40,862	7	1,962	509,578	28,963	10,701 ○ 37	269 ○ 68	—	+ 1,745 + 534	13,354
Kagoshima-Denki	43,192	6	—	167,371	—	3,573	21	—	—	3,594
Shingu	90,191	7	2,142	497,385	16,366	12,164	73	70	+ 652 + 550 ○ 1	13,510
Okawa	29,171	1	24	153,920	186	3,848 ○ 179	5	—	12	4,044
Total	6,165,152	7,175	1,875,305	98,376,079	20,297,710	1,775,300 ○ 22,464	34,712 ○ 5,558	15,481	640,309 + 110,014 ○ 60,222	2,664,060
Grand Total	3,296,898	14,027	3,615,176	233,493,360	46,553,659	3,717,520 ○ 29,118	88,697 ○ 6,126	24 582	1,356,498 + 222,206 ○ 117,293	5,562,040
Inc. or dec. (△) against preceding year	3,468,902	4,277	631,512	24,071,131	6,059,635	456,539 ○ 29,118	26,961 ○ 2,360	4,178	355.720 △ 77,125 ○ 101,777	899,528

Note : — ○ indicates admittance fee, advertising charge in the column of passenger and fare, storage in that of luggage while in the column of freight it denotes wagon hire, storage, demurrage, etc.

+ siginfies terminal charge.

B. TRAFFIC MILEAGE AND RECEIPTS.

	Name of Railway	Traffic mileage at the end of the year	Average traffic mileage during the year	Day mileage	Average number of pass. and goods carried per day per mile		Average per passenger			Average per ton		
					Passenger	Goods	Mileage	Receipts	Fare per mile	Mileage	Receipts	Rate per mile
		m.c.	*m.c.*	*day mile*				*yen*	*yen*		*yen*	*yen*
Private Railway	Narita	45.06	45.08	16,454	934	191	13.3	.242	.0182	12.5	.409	.0190
	Chuetsu	23.06	23.08	8,424	815	140	7.0	.123	.0176	8.7	.328	.0379
	Nankai	42.51	42.19	15,399	5,119	427	6.9	.086	.0125	16.7	.357	.0214
	Tobu	72.33	72.41	26,430	1,176	410	14 4	.232	.0161	16.1	.467	.0289
	Hakatawan	16.34	16.43	5,997	192	611	5.0	.098	.0197	11.0	.392	.0356
	Yokohama	26.41	16.19	5,909	240	147	7.8	.154	.0197	14.2	.454	.0319
	Total	225.55	215.38	78,613	1,721	334	8.4	.120	.0144	15.1	.412	.0273
Railway	Iyo	26.78	26.98	9,875	1,283	87	4.0	.052	.0131	7.8	.248	.0319
	Tobu (light railway)	20.34	10.11	3,690	229	114	4.3	.084	.0196	6.7	.266	.0396
	Ome	13.00	13.00	4,745	411	475	7.7	.140	.0183	10.3	.223	.0216
	Kawagoe	18.36	18.45	6,734	747	239	7.4	.132	.0180	11.6	.330	.0284
	Kotsuke	21.00	21.00	7,665	301	84	8.5	.195	.0230	15.1	.518	.0344
	Toyokawa	18.36	18.45	6,734	1,028	105	6.9	.122	.0177	8.7	.326	.0373
	Bisai	15.46	15.58	5,687	630	103	5.5	.113	.0204	9.4	.255	.0273
	Omi	26.01	26.01	9,494	463	76	6.5	.153	.0231	10.7	.413	.0386
	Kanan	10.22	10.28	3,752	931	83	4.3	.068	.0157	4.8	.192	0.4 2
	Chugoku	50.20	50.25	18,341	832	226	10.5	.192	.0184	25.7	.769	.030
	Ryugasaki	2.64	2.80	1,025	286	31	2.7	.074	.0269	2.8	.122	.0435
	Jobu	21.04	21.05	7,704	423	136	10.4	.210	.0202	8.5	.242	.0283
	Mito	12.11	12.14	4,443	447	125	8.7	.155	.0179	11.2	.372	.0333

Sunzu-Denki	10.51	10.04	3,884	794	67	5.7	.110	.0193	7.0	.285	.0408
Koyatozan	—	2.64	966	792	76	5.7	.113	.0198	7.3	.226	.0312
Kosaka	17.31	17.39	6,347	1,502	185	6.9	.077	.0111	9.6	.270	.0282
Chiba (Prefectural management)	16.24	16.30	5 950	254	351	11.8	.237	.0201	10.6	.487	.0459
Shimabara	38.51	28.19	10,289	204	35	6.4	.138	.0217	8.7	.304	.0349
Uonuma	15.68	9.54	3,492	310	10	5.4	.105	.0194	5.4	.268	.0500
Seibi	8.06	8.08	2,957	269	39	6.4	.172	.0267	8.5	.298	.0352
Kamaishi coal line	8.25	8.31	3,041	469	6	6.2	.155	.0250	8.0	.772	.0961
Tosan-Denki	9.71	9.89	3.620	92	548	8.0	.160	.0199	9.3	.218	.0235
Hatsuse	7.52	7.36	2,686	933	—	3.8	.068	.0181	—	—	—
Aichi-Denki	3.39	3.44	1.256	683	—	3.1	.094	.0303	—	—	—
Nagoya-Denki	14.60	11 45	4,191	859	—	7.4	.154	.0209	—	—	—
Chuetsu (light railway)	20.76	7.56	2,767	1,149	22	3.7	.072	.0195	12.0	.453	.0376
Kada-Keiben	5.66	4.90	1,789	646	14	4.7	.081	.0171	5.6	.354	.0637
Matsuzaka-Keiben	5.55	2.58	944	761	4	4.1	.094	.0233	5.0	.781	1.574
Echigo	12.46	3.64	1 332	352	32	7.7	.143	.0186	10.0	.205	.0204
Yoshino	39.64	8.53	3,122	365	6	9.2	.210	.0229	8.7	,608	.0700
Senboku-Keiben	7.19	3.73	1,361	924	73	6.4	.146	.0228	6.1	.343	.0559
Kagoshima-Denki	17.33	3.09	1,131	451	26	12.5	.262	.0210	14.8	.889	.0601
Shingu	4.00	.33	121	1,387	—	3.9	.083	.0213	—	—	—
Okawa	9.51	2.32	847	587	19	5.5	.135	.0245	7.6	.304	.0398
	11.50	1.94	708	217	—	5.3	.132	.0250	7.8	.500	.0645
Total	512.10	417.95	152,690	646	133	6.1	.110	.0180	10.8	.341	.0315
Grand to al	767.65	633.33	231,303	1,014	201	7.2	.115	.0159	12.9	.275	.0291
Inc. or dec. (△) against preceding year.	204 28	111.48	40,380	△ 83	△ 6	△ .1	.002	.0003	△ .7	.040	.0041

7.—RAILWAY ACCIDENTS.

Railway accidents which took place during the year under review amounted to 254 cases, of which the most serious are described under:—

On June 1st. 1913, in the Domyoji station yard a motor car proceeding on a wrong track struck a wagon with the result that three passengers were slightly wounded. The accident was due to the switch assuming a wrong position.

On September 23rd. 1912, No. 6 train leaving Yoshimachi for Fushiki was struggling its onward way amidst a heavy rain storm, when at the spot of a sharp curve 3 m. 30 ch. distant from Takaoka station the train was suddenly caught by a strong gale. A derailment was the instant result followed by the overturn of 4 carriages, 2 break vans and one wagon causing one passenger and one section. man to be seriously wounded and 9 passengers and one conductor to be slightly injured.

On January 28 th. 1913, a wagon in course of shunting operation in the Sumiyoshihigashi station yard had a collision at the level crossing with No. 111 electric train just coming up which resulted in two persons suffering slight wounds. The cause of the accident is attributable to the danger signal darkened by smoke from the shunting engine together with the incomplete light of the head lamp of the car.

A. NUMBER OF ACCIDENTS.

	Name of Co.	Derailment						Collision						Overturned						Trains detached	Trains misguided	Defects in vehicles					Track obstructed		Train obstructed		Cars outrunning	Fire	Others	Total number of accidents
		Number of accidents	Number of vehicles																															
			Locomotive	Carriage	Electric car	Steam motor car	Wagon	Locomotive	Passenger train	Electric car	Steam motor car	Freight train	Vehicle	Number of accidents	Locomotive	Carriage	Electric car	Steam motor car	Wagon			Locomotive	Electric car	Carriage	Steam motor car	Wagon	Natural calamity	Human agency	Natural calamity	Human agency				
Private Railway	Narita	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	1	—	—	—	—	—	—	1	—	—	3
	Chuetsu	—	—	—	—	—	1	—	—	—	—	—	—	1	—	4	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	1	—	3
	Nankai	1	—	—	—	—	1	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	8	—	1	—	—	—	13
	Tobu	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	4	1	—	—	6
	Hakatawan	1	1	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
	Ashio	28	2	2	—	—	27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	15	1	—	—	—	—	—	44
	Total	30	3	2	—	—	30	—	—	2	—	—	—	1	—	4	—	—	2	—	1	3	—	—	—	1	16	9	—	5	1	1	—	70
	Iyo	10	5	1	1	—	3	—	—	2	—	—	1	—	—	—	—	—	—	—	6	3	—	—	—	—	1	11	—	12	—	1	15	62
	Tobu	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Ome	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	1	—	2
	Kotsuke	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	1	—	2
	Kawagoe	6	3	1	—	—	9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1	—	—	—	8
	Toyokawa	1	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	1	—	—	—	4
	Bisai	2	1	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	1	4

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	Name of Railway.	Passengers								Officials								Passers-by								Total	
		Accident		Negligence		Suicide		Cause unknown		Accident		Negligence		Suicide		Cause unknown		Accident		Negligence		Suicide		Cause unknown			
		Death	Injury	Death	Injury	Death	Injury	Death	Injury	Death	Injury	Death	Injury	Death	Injury	Death	Injury	Death	Injury	Death	Injury	Death	Injury	Death	Injury	Death	Injury
Private Railway	Narita	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	—	6	—	—	—	10	—
	Chuetsu	—	10	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12
	Nankai	—	1	1	2	—	—	—	—	—	1	2	5	—	—	—	—	—	—	21	34	7	2	—	—	31	45
	Tobu	—	—	1	3	—	—	—	—	—	—	4	3	—	—	—	—	—	—	3	2	24	2	—	—	32	10
	Hakatawan	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Ashio	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Total	—	11	2	5	—	—	—	—	—	3	6	8	—	—	—	—	—	—	28	36	37	4	—	—	73	67
	Iyo	—	—	1	3	—	—	1	—	—	—	—	2	—	—	—	—	—	—	4	4	10	—	—	—	16	9
	Tobu (light railway)	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	1	—	—	—	1	1
	Ome	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	2	—
	Kawagoe	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7	—	—	—	7	—
	Kotsuke	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1	1
	Toyokawa	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	1	1
	Bisai	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	1	—	—	—	3	2
	Omi	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Kanan	—	3	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	1	—	—	—	2	3
	Chugoku	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	1	—	5	—	1	—	8	—
	Ryugasaki	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Jobu	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	1	—	—	2	2

Mito	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1	—
Sunzu-Denki	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	2	—
Izu	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	1	—
Koyatozan	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	2	1	5	3	1	—	—	4	9
Kosaka	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Chiba (Prefectual management) ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	2	—
Shimabara...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Uonuma	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Seibi	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	1	—	—	—	—	—	2
Kamaishi Coal Line (leased from Government) ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	3
Tosan-Denki	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	1
Hatsuse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1	—
Aichi-Denki	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	1	1
Nagoya-Denki	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	1	—	—	—	—	—	1	1
Chuetsu	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	2
Kada-Keiben	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Matsuzaka-Keiben	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Echigo	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Yoshino	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Senboku-Keiben	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kagoshima-Denki	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Shingu	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	2
Okawa	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	4	1	5	—	—	1	—	—	—	2	8	—	—	—	—	—	2	11	17	40	4	1	—	56	40
Grand total	—	15	3	10	—	—	1	—	—	3	8	16	—	—	—	—	—	2	39	53	77	8	1	—	120	107

8.—TRAFFIC RECEIPTS & EXPENSES.

A. TRAFFIC RECEIPTS AND EXPENSES.

	Name of Railway	Traffice receipts				Traffic expenses					Profit	
		Coaching receipts	Goods receipts	Sundries	Total	Maintenance of way	Locomotive	Transportation	General	Total	Amount	Percentage to construction expenses
		yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	%
Private Railway	Narita	287,522	85,433	15,402	388,357	38,342	57,180	31,622	50,218	177,362	120,995	.086
	Chuetsu	125,529	69,793	6,079	201,401	12,367	30,017	18,444	15,472	76,300	125,101	.131
	Nankai	1,021,049	171,456	12,577	1,205,082	71,752	246,985	145,890	166,287	630,914	574,168	.066
	Tobu	518,416	368,299	4,923	891,638	44,599	142,087	105,304	71,850	363,340	528,298	.077
	Hakatawan	21,604	156,946	27,958	206,508	24,102	33,929	20,351	27,886	106,268	100,240	.070
	Ashio	38,408	33,525	6,825	78,758	14,295	25,036	21,000	17,171	77,502	1,256	.001
	Total	2,012,528	885,452	73,764	2,971,744	205,457	535,234	342,611	348,384	1,431,686	1,540,058	.070
Railway	Iyo	182,920	40,094	1,109	230,123	23,893	31,543	57,222	25,422	138,080	92,043	.092
	Tobu (light railway)	17,005	23,438	640	41,083	4,814	8,581	8,985	4,053	26,433	14,650	.071
	Ome	37,415	58,231	903	96,549	6,514	24,405	13,418	10,067	54,404	42,145	.082
	Kawagoe	96,401	54,702	3,724	154,827	22,172	37,773	16,262	21,746	97,953	56,874	.124
	Kotsuke	54,315	28,636	2,856	85,807	9,279	29,979	8,905	6,553	54,716	31,091	.052
	Toyokawa	119,084	43,268	7,820	170,172	10,911	19,707	16,456	21,839	68,913	101,259	.090
	Bisai	75,532	26,844	856	103,232	8,375	20,339	15,319	13,664	57,697	45,535	.064
	Omi	106,619	33,757	1,556	141,932	18,784	33,492	17,085	17,223	86,584	55,348	.033
	Kanan	56,387	16,903	872	74,162	3,543	21,701	10,724	11,756	47,724	26,348	.064
	Chugoku	290,583	152,569	22,554	465,706	36,837	78,615	45,914	58,139	219,500	246,201	.058
	Ryugasaki	8,512	3,296	403	12,211	698	3,970	1,029	1,976	7,673	4,538	.058

Jobu	68,911	37,634	4,255	109,900	10,930	20,123	14,830	13,581	59,464	50,136	.050
Mito	37,550	29,048	4,956	71,554	6,471	11,849	10,062	9,659	38,041	33,513	.166
Sunzu Denki	61,580	14,249	1,119	76,948	6,730	11,927	11,643	6,401	36,701	40,247	.065
Ito	15,687	3,556	28	19,271	1,266	2,765	2,696	2,195	8,922	10,319	—
Koyatozan	108,369	39,964	14,466	162,899	8,496	53,717	23,128	22,904	108,245	54,654	.046
Kosaka	31,957	109,152	620	141,729	18,965	28,152	11,410	9,589	68,146	73,583	.068
Chiba (Prefectural management)	53,878	16,328	—	70,206	11,696	32,039	22,242	1,889	67,796	2,410	.004
Shimabara	21,744	2,713	3,814	28,271	5,957	7,288	7,786	2,265	23,296	4,975	.010
Uonuma	21,952	7,365	567	29,884	5,236	9,610	4,960	5,622	24,828	5,056	.020
Seibi	37,494	1,788	453	39,735	4,587	6,253	5,498	6,062	22,405	17,330	.067
Kamaishi coal line	6,756	46,626	—	53,382	7,329	30,739	12,063	2,416	52,547	835	.003
Tosan-Denki	45,562	—	4,303	49,865	18,151	25,157	12,532	16,546	72,386	△ 22,521	.032
Hatsuse	26,059	—	45	26,104	1,716	8,260	2,751	4,595	17,322	8,782	.033
Aichi-Denki	76,309	—	2,818	79,127	6,936	13,592	4,642	9,494	34,664	44,463	.070
Nagoya-Denki	62,528	2,934	194	65,656	6,952	14,876	10,686	4,693	37,207	82,449	.043
Chuetsu (light railway)	20,256	2,367	320	22,943	1,529	3,710	2,692	792	8,723	14,220	.027
Kada-Keiben	18,809	757	71	17,637	2,138	4,016	3,722	1,163	11,039	6,598	.068
Matsuzaka-Keiben	8,789	999	75	9,863	4,712	2,969	2,370	1,818	11,869	△ 2,006	.013
Echigo	26,868	1,973	558	29,399	6,579	6,011	13,729	494	26,813	2,586	.010
Yoshino	29,476	7,860	579	37,915	4,282	6,336	7,544	2,327	20,489	17,426	.054
Senboku-Keiben	11,075	2,279	1,079	14,429	1,061	2,158	2,711	391	6,321	8,108	.113
Kagoshima-Denki	3,594	—	2,798	6,392	11	476	666	63	1,216	5,176	.170
Shingu	12,307	1,203	891	14,401	1,126	2,015	2,739	1,425	7,305	7,096	.053
Okawa	4,032	12	504	4,548	139	40	1,755	2,002	3,936	612	.010
Total	1,853,515	810,515	93,802	2,757,862	288,815	613,588	406,206	320,754	1,629,363	1,128,499	.054
Grand total	3,866,043	1,695,997	167,566	5,729,606	494,272	1,148,822	748,817	669,138	3,061,049	2,668,557	.080
Inc. or dec (△) against preceding year.	519,843	380,073	△ 92,283	807,633	112,671	265,532	154,281	126,582	659,066	148,567	△ .008

	Name of Railway	Sundry profits	Interest and extraordinary expenses	Net profit	Brought over from the preceding year	Dividend				Transferred to the next year
						Reserve	Bonus	Dividend		
								Amount	Percentage	
		yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	%	*yen*
Private Railway	Narita	—	—	210,995	4,135	32,350	19,000	1st half 78,812 2nd half 73,812	.065 .065	6,156
	Chuetsu	14,220	3,090	156,231	4,366	6,900	9,180	„ 60,600 „ 63,000	.120 .120	917
	Nankai	245,832	244,611	575,389	242,344	28,920	14,500	„ 319,336 „ 286,944	.090 .080	168,053
	Tobu	14,650	171,703	371,245	10,465	18,755	—	„ 160,230 „ 190,000	.098 .100	12,725
	Hakataiwan	—	—	100,240	7,177	5,015	5,000	„ 37,765 „ 47,725	.050 .062	11,912
	Ashio	30,340	—	40,596	13,929	2,800	500	„ — „ 50,000	— .050	1,225
	Total	314,042	419,404	1,434,696	282,416	94,720	48,180	1,373,224	—	201,988
Railway	Iyo	3,758	6,925	88,876	12,083	6,500	6,000	„ 37,800 „ 40,500	.090 .090	10,159
	Tobu	—	—	—	—	—	—	—	—	—
	Ome	24,049	482	65,712	10,693	13,750	3,850	„ 22,000 „ 22,000	.080 .080	15,325
	Kawagoe	—	603	56,271	26,081	2,900	2,900	„ 20,100 „ 20,100	.100 .100	36,352
	Kotsuke	66,062	78,598	18,555	—	2,752	832	„ 2,800 „ 8,857	.040 — .080 .020	3,314
	Toyokawa	—	11,319	89,940	1,031	4,660	1,400	„ 38,000 „ 44,000	.076 .080	3,811
	Bisai	—	2,244	43,291	1,038	2,174	—	„ 18,960 „ 22,680	.060 .070	515
	Omi	21,000	37,087	39,261	15,767	2,810	2,800	„ 19,800 „ 22,000	.036 .040	7,618
	Kanan	—	—	26,438	883	5,350	1,120	„ 10,000 „ 10,200	.060 .080 .060 .080	651
	Chugoku	—	20	246,181	5,785	12,350	16,000	„ 107,500 „ 107,500	.050 .050	8,616
	Ryugasaki	—	4,537	—	—	—	—	—	—	—

Jobu	—	19,143	31,293	4,175	○	655,0	1,550	„	11,000	.020	4,818
								„	11,600	.100	
								„	11,600	.020	
								„		.100	
Mito	—	826	32,831	2,217	○	7,900	6,000	„	9,200	.080	2,748
								„	9,200	.080	
Sunzu-Denki	—	31,075	9,172	7,148	○	3,620	1,500	„	35,000	.080	23,800
								„	—	—	
Izu	—	—	10,349	4,339		—	—	„	14,688	—	—
Koyatozan	—	9,445	45,214	2,450		2,300	1,350	„	22,825	.055	439
								„	20,750	.050	
Kosaka	—	59,589	13,994	1,090		700	—	„	3,000	.060	8,384
								„	3,000	.060	
Chiba (Prefectural management)	—	35,708	33,298	—		—	744		—	—	34,042
Shimabara	16,111	516	2,603	—		249	—	„	—	—	114
		1,302						„	2,240	—	
		16,665									
Uonuma	—	5,091	35	1,167		—	—		—	—	1,202
Seibi	—	2,840	14,490	1,864	○	1,130	1,200	„	2,655	.030	66
								„	7,575	.060	
Tamaishi coal line	—	—	835	—		—	—		835	—	—
Tosan-Denki	2,048	160	20,633	14,077		—	—		—	—	6,556
Hatsuse	—	1,659	7,123	380		500	500	„	3,814	.050	2,689
								„	—	—	
Aichi-Denki	14,711	512	58,662	4,250	○	5,940	2,920	„	15,000	.065	6,052
								„	33,000	.066	
Nagoya-Denki	291,060	9,090	310,419	25,854	○	34,500	11 100	„	123,750	.090	32,923
								„	144,000	.090	
Chuetsu	—	—	—	—		—	—		—	—	—
Kada-Keiben	—	1,200	5,398	1,408		800	800	„	—	—	206
								„	5,000	.060	
Matsuzaka-Keiben	7,524	1,728	3,790	—	○	350	—		—	—	3,440
Echigo	—	—	2,586	6,750		—	—		—	—	9,336
Yoshino	—	7,190	10,236	2,288		510	1,200		—	—	11 014
Senboku-Keiben	—	254	7,854	1,165	○	1,665	—		—	—	5,024
Kagoshima-Denki	—	—	5,176	5,313		550	1,048	„	—	—	2,491
								„	6,400	.050	
Shingu	—	5,135	1,962	4,133	○	992	—		—	—	5,103
Okawa	—	3,788	3,176	3,629		—	—		—	—	453
Total	446,323	354,582	1,191,370	159,566		111,452	64,114		1,059,329	—	116,041
Grand total	760,365	773,986	2,626,066	441,982		206,172	112,294		2,432,553	—	317,029
Inc. or dec (^) against preceding year	404,941	228,557	386,081	219,777		53,528	13,589		615,055	—	^ 76,314

B. AVERAGE TRAFFIC RECEIPTS AND EXPENDITURES PER DAY PER MILE, AND PER TRAIN MILE, Etc.

	Name of Co.	Traffic Receipts				Traffic Expenses					Net profit	Average per train mile			Traffic per 100 yen of traffic receipts
		Coaching receipts	Goods receipts	Sundries	Total	Maintenance of way	Locomotive	Transportation	General	Total		Traffic receipts	Traffic expenses	Profit	
		yen	yen	yen	yen	yen	yen	yen	yen	yen	yen	yen	yen	yen	yen
Private Railway	Narita	17.47	5.19	.94	23.60	2.33	3.48	1.92	3.05	10.78	12.82	1.38	.63	.75	46
	Chuetsu	14.90	8.29	.72	23.91	1.47	3.56	2.19	1.84	9.06	14.85	1.65	.62	1.03	38
	Nankai	66.31	11.13	.82	78.26	4.66	16.04	9.47	10.80	40.97	37.29	1.65	.86	.79	52
	Tobu	19.61	13.94	.19	33.74	1.69	5.38	3.98	2.70	13.75	19.99	1.38	.56	.82	41
	Hakatawan	3.61	26.19	4.66	34.44	4.02	5.66	3.39	4.65	17.72	16.72	1.94	1.00	.94	51
	Ashio	6.50	5.67	1.16	13.33	2.42	4.24	3.55	2.91	13.12	.21	1.08	1.06	.02	98
	Total	25.59	11.27	.94	37.80	2.61	6.81	4.36	4.43	18.21	19.59	1.52	.73	.79	48
Railway	Iyo	18.52	4.06	.72	23.30	1.42	3.19	5.80	2.57	13.98	9.32	.62	.37	.25	60
	Tobu	4.61	6.35	.17	11.13	1.30	2.33	2.43	1.10	7.16	3.97	.67	.43	.24	64
	Ome	7.89	12.27	.19	20.35	1.37	5.14	2.83	2.13	11.47	8.88	1.22	.69	.53	56
	Kawagoe	14.32	8.12	.55	22.99	3.29	5.61	2.41	3.24	14.55	8.44	1.68	.68	.40	63
	Kotsuke	7.09	3.74	.37	11.20	1.22	3.91	1.16	.85	7.14	4.06	.72	.46	.26	64
	Toyokawa	17.68	6.43	1.16	25.27	1.62	2.93	2.14	3.24	10.22	15.04	1.76	.71	1.05	41
	Bisai	13.28	4.72	.15	18.15	1.47	3.58	2.69	2.40	10.14	8.01	1.11	.62	.49	56
	Omi	11.23	3.56	.16	14.95	1.98	3.53	1.80	1.81	9.12	5.83	1.15	.70	.45	61
	Kanan	15.03	4.51	.23	19.77	.95	5.78	2.86	3.13	12.72	7.05	1.12	.72	.40	64
	Chugoku	15.84	8.32	1.23	25.39	2.01	4.29	2.50	3.17	11.97	13.42	1.92	.90	1.02	47
	Ryugasaki	8.30	3.22	.39	11.91	.68	3.87	1.00	1.93	7.48	4.43	.62	.39	.23	63

Jobu	8.84	4.88	.55	14.27	1.42	2.61	1.93	1.76	7.72	6.55	1.13	.61	.52	54
Mito	8.15	6.54	1.11	16.10	1.46	2.67	2.26	2.17	8.56	7.54	1.61	.86	.75	53
Sunzu-Denki	15.85	3.67	.29	19.81	1.73	3.07	3.00	1.65	9.45	10.36	1.44	.69	.75	48
(Izu)	16.24	3.68	.03	19.95	1.32	2.86	2.79	2.27	9.24	10.71	1.44	.67	.77	46
Koyatozan	17.09	6.30	2.28	25.67	1.34	8.46	3.64	3.61	17.05	8.63	.88	.59	.29	66
Kosaka	5.37	18.34	.11	23.82	3.19	4.73	1.92	1.61	11.45	12.37	2.43	1.17	1.26	48
Chiba (Prefectural management)	5.23	1.59	—	6.82	1.14	3.11	2.16	.18	6.59	.23	.64	.62	.02	97
Shimabara	6.23	.78	1.09	8.10	1.71	2.09	2.23	.65	6.68	1.42	.65	.54	.11	82
Uonuma	7.42	2.40	.20	10.11	1.77	3.05	1.68	1.90	8.40	1.71	.78	.65	.13	83
Seibi	12.33	.59	.15	13.07	1.51	2.06	1.81	1.99	7.37	5.70	.59	.33	.26	56
Kamaishi coal line	1.87	12.88	—	14.75	2.02	8.49	3.34	.67	14.52	.23	.78	.77	.01	98
Tosan-Denki	16.06	—	1.60	18.56	6.76	9.36	4.67	6.16	26.95	8.39	.83	1.21	.38	1.45
Hatsuse	20.75	—	.03	20.78	1.36	6.58	2.19	3.66	13.79	6.99	2.35	1.56	.79	66
Aichi-Denki	18.21	—	.67	18.88	1.65	3.24	1.11	2.27	8.27	10.61	1.91	.84	1.07	44
Nagoya-Denki	22.60	1.06	.07	23.73	2.51	5.38	3.87	1.69	13.45	10.28	1.25	.71	.54	57
Chuetsu	12.32	1.32	.18	12.82	.85	2.08	1.50	.44	4.87	7.95	.80	.30	.50	38
Kada-Keiben	17.80	.80	.08	18.68	2.27	4.25	3.94	1.23	11.69	6.99	.48	.30	.18	63
Matsuzaka-Keiben	6.60	.75	.05	7.40	3.54	2.23	1.78	1.36	8.91	1.51	.47	.57	.10	1.20
Echigo	8.61	.63	.18	9.42	2.11	1.93	4.40	.15	8.59	.83	1.06	.97	.09	91
Yoshino	21.66	5.78	.42	27.86	3.15	4.66	5.54	1.71	15.06	12.80	1.74	.94	.80	54
Senhoku-Keiben	9.79	2.02	.95	12.76	.94	1.91	2.40	.34	5.59	7.17	1.06	.46	.60	44
Kagoshima-Denki	29.70	—	23.12	52.82	.09	3.93	5.50	.52	10.04	42.78	1.91	.36	1.55	19
Shingu	14.53	1.43	1.04	17.00	1.33	2.38	3.23	1.68	8.62	8.38	1.12	.57	.55	51
Okawa	5.69	.02	.71	6.42	1.19	.06	2.48	2.38	5.56	.86	.48	.42	.06	87
Total	12.14	5.31	.61	18.06	1.89	4.02	2.66	2.10	10.67	7.39	1.09	.64	.45	59
Grand total	16.71	7.33	.73	24.77	2.13	4.97	3.24	2.89	13.23	11.54	1.27	.68	.59	53
Inc. or dec (△) against preceding year	△ .81	.44	△ .63	△ 1.01	.13	.35	.13	.05	.65	△ 1.66	△ .04	.04	△ .08	4

9.—NUMBER AND SALARIES OF DIRECTORS AND STAFF.

	Name of Co.	Director		General affairs		Construction and maintenance of way		Locomotive		Transportation		Accounts and Stores		Total	
		Number	Monthly salary	Number	Monthly salary	Number	Monthly salary	Number	Monthly salary	Number	Monthly salary	Number	Monthly salary	Number	Monthly salary
			yen		*yen*		*yen*		*yen*		*yen*		*yen*		*yen*
Private Railway	Narita	8	625	18	401	79	935	66	1,156	97	1,425	—	—	268	4,542
	Chuetsu	7	—	3	94	75	715	57	877	68	750	9	134	219	2,570
	Nankai	10	885	18	443	201	2,880	241	4,859	484	6,592	22	558	976	16,217
	Tobu	9	575	—	—	263	2,911	225	3,367	340	4,160	35	592	872	11,605
	Hakatawan	6	200	3	58		89		1,488	88	1,095	4	113	190	2,954
	Ashio	14	967	24	562	102	1,936	36	652	55	769	—	—	231	4,886
	Total	—	—	—	—	—	—	—	—	—	—	—	—	2,756	42,774
Railwy	Iyo	7	163	2	27	64	895	80	1,312	203	2,553	8	177	364	5,127
	Ome	8	100	4	78	20	278	28	447	44	602	—	—	104	1,505
	Kawagoe	8	96	7	151	32	336	21	380	51	505	—	—	119	1,558
	Kotsuke	8	115	3	36	26	282	22	341	31	364	—	—	90	1,128
	Toyokawa	8	110	3	41	26	316	25	436	64	991	4	90	130	1,984
	Bisai	10	182	5	57	27	359	26	428	60	753	—	—	128	1,779
	Omi	6	155	—	—			133	1,682			9	144	148	1,981
	Kanan	5	190	3	45	17	221	31	502	43	608	3	56	102	1,662
	Chugoku	11	427	2	411	99	1,560	39	541	141	1,678	—	—	311	4,617
	Ryugasaki	8	8	1	11			11	125			—	—	20	144
	Jobu	8	150	6	131			109	1,570			—	—	123	1,851

Light

Mito	7	85	—	—	20	255	20	308	37	436	5	110	89	1,194
Sanzu-Denki	10	—	1	11	25	272	15	240	33	494	2	54	86	1,071
Koyatozan	8	232	13	256	45	716	35	965	152	1,800	—	—	253	3,969
Kozaka	5	—	12	310	35	613	25	557	33	607	—	—	110	2,087
Chiba (Prefectural management)	1	—	1 5	— 126	41	431	54	541	71	999	—	—	173	2,097
Shimabara	12	163	8	103	72	1,076	19	270	38	396	11	214	160	2,222
Uonuma	6	73	4	73	10	157	14	194	21	246	2	34	57	777
Saibi	8	67	7	67	16	210	14	199	22	248	—	—	67	791
Kamaishi Coal Line	1	38	—	—	29	497	9	120	46	665	—	—	85	1,320
Tosan-Denki	6	180	7	90	32	481	38	595	36	476	2	50	121	1,822
Hatsuse	6	—	—	—	9	105	17	272	15	250	—	—	47	627
Aichi-Denki	13	414	5	151	54	947	19	394	54	696	13	288	158	2,890
Nagoya-Denki	12	916	16	343	24	600	45	928	184	2,595	13	224	294	5,606
Kada-Keiben	6	90	1	18	14	193		45	495		2	34	68	830
Matsuzaka-Keiben	7	72	8	119	38	415	20	258	30	369	—	—	103	1,233
Echigo	10	192	13	203	92	1,371		140	1,770		8	187	263	3,723
Yoshino	12	—	4	55	34	536	17	270	31	478	3	63	101	1,402
Senhoku-Keiben	9	372	5	104	38	610	20	350	38	553	3	73	113	2,062
Kagoshima-Denki	10	413	10	149	34	587	22	474	55	559	12	200	143	2,382
Shingu	11	120	—	—	36	640	14	233	59	697	—	—	120	1,690
Okawa	10	182	8	118	23	350		281	1,085		2	39	124	1,774
Total	—	—	—	—	—	—	—	—	—	—	—	—	4,373	64,865
Grand total	—	—	—	—	—	—	—	—	—	—	—	—	7,130	107,639
Inc. or dec. (-) against last year	—	—	—	—	—	—	—	—	—	—	—	—	1,755	25,037

TRAMWAYS.

(RETURNS FOR THE YEAR ENDING MARCH 31ST, 1913).

GENERAL RESUME.

The Japanese tramways date back from 1880, when in February an application was tendered for the construction of the Tokyo Horse Tram Co.'s line. The application was sanctioned, and the line was completed and opened for traffic in June, 1883. This was soon followed by others in rapid succession, and especially since 1888 every year witnessed the application for four or five horse tramway undertakings. The result was the promulgation of the Tramwry Regulations by Law No. 71 on August 23rd, 1891, by virtue of which horse tramways and similar means of transportation to be laid on public roads for general traffic came to be authorised subjest to the special sanction of the Minister of Home Affairs. On October 22nd, 1908 it was further provided by Imperial Ordinance No. 266 that applicants for the construction of tramways on the Tramway Orders should also obtain the sanction of the Minister of Communications, whereupon the control of the tramways as to their construction and working came in the charge of the Imperial Government Railways.

At the end of the fiscal year 1912-13 there were 168 tramways representing 1,861.29 miles of tracks, of which 113 tramways with 1,059.25 miles (exclusive of 337.37 miles under construction) were opened for traffic, and 55 tramways with 464.67 miles have not yet opened their business. Classified further by motive power, 499.5 miles (exclusive of 236.13 miles under construction) were represented by 49 electric tram undertakings, 168.2 miles (exclusive of 60.71 miles under construction) by 4 steam engine, 23.39 miles (exclusive of 14.1 miles under construction) by one petroleum moter, 291.19 miles (exclusive of 22.15 miles) by 40 horse tram, and 76.97 miles (exclusive of 4.21 miles under construction) by 13 *rikisha* concerns Of the tramways not yet open to traffic, 318.22 miles are represented by 29 electric tram undertakings, 44.88 miles by 7 steam engine, 84. 69 miles by 12 horse tram, 16.8 miles by 7 *rikisha* concerns.

The following are the results of the working of tramways at the end of the business year or within the same year of the respective tramways :—

There were 114 tramways in operation with an aggregate mileage of 1,072.3 miles, of which 503.6 miles were represented by 50 electric tramways, 168.2 miles by 10 steam engine, 23.39 miles by one petroleum motor, 291.19 miles by 40 horse tram, and 185.92 miles by 13 *rikisha*.

The amount of share capital (inclusive of capital funds for municipal or private undertakings as well as capital funds allocated for outside undertakings) totalled ¥241,374,327 and the paid up capital ¥207,325,588, of which ¥231,719,447 (with ¥200, 654,009 paid up) were represented by electric tramways, ¥4,900,000 (with ¥3,224,829 paid up) by sterm engine, ¥1,000,000 (with ¥750,000 paid up) by a petroleum engine, ¥3,000,041 (with ¥2, 075,586 paid up) by horse tram, and ¥724,839 (with ¥621,162 paid up) by *rikisha*.

The aggregate cost of construction (inclusive of that pertaining to the outside undertakings) were ¥209,264,069 for the electric tramways, ¥4,394, 778 for the steam engine, ¥900,180 for the petroleum engine, ¥2,627,566 for the horse tramways, and ¥655,852 for the *rikisha*, making a total of ¥217,842,445.

The rolling stock returns comprised 165 steam and petroleum engines, 4,038 passenger carriages (of which 3,361 were hauled by electricity, steam or petroleum engines and 677 by horse or human power), 1,560, goods wagons (of which 429 were hauled by electricity, steam or petroleum engines, and 1,031 by horse or human power).

The number of mileage travelled by passenger cars were 93,572,754 miles, of which 88,591,706 miles were represented by the electric, steam and petroleum trams and 4,981,648 miles by horse trams and *rikisha*. The number of mileage covered by goods wagons were 7,042,893 miles, of which 1,679,018 miles were represented by the electric, steam and petroleum and 5,363,875 miles by horse trams and *rikisha*.

The number of passengers carried were 506,568, 091 with a total sum of earnings of ¥21,523,682 accruable therefrom, of which 497,301,848 representing ¥20,857,728 came from electric, steam, and petroleum tram service and 9,266,243 representing ¥665,954 from horse tram and *rikisha* service.

The weight of goods handled (inclusive of parcels) were 1,614,048 tons, with a total sum of earnings of ¥604,341 accruable therefrom, of which 584, 923 tons representing ¥297,795 came from electric, steam and petroleum tram service, and 1,029,125 tons representing ¥306,546 from horse tram and *rikisha* service.

The gross earnings from operation (inclusive of those from the outside undertakings) aggregated ¥28,564,568 and the expenditure ¥20,546,718, leaving a net profit of ¥7,967,850 which are made up as follows :—

	Gross earnings	Expenditure	Net profit
	yen	*yen*	*yen*
Electric, steam, and petroleum tram service	27,228,253,	19,477,321	7,750,932
rikisha & horse tram ...	1,286.315	1,069,377	216,918

Details, as compared with the preseding year, are tabulated below.

Table No. I.

GENERAL BALANCE SHEET.

(A) CAPITAL ASSETS.

Kind of Tramways \ Item		Share capital unpaid	Cost of construction	Stores	Temporary payments	Accounts receivable	Negotiable bonds	Deposits	Cash	Securities	Miscellaneous	Total
		yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
Electric	1912	31,065,438	209,613,881	6,336,742	2,422,015	469,619	1,108,682	8,129 838	472,866	54.491	13,561,438	273.235,010
	1911	23,885,330	158,714,820	5,552,193	2,563,977	312,591	154,660	7,389,013	937,627	2,673	2,612,504	202,125,388
Steam Engine	1912	1,675,171	4,044,966	85,028	79,339	4,137	7,813	72,430	3.171	—	248,388	6.220,443
	1911	1,001,512	2,889,396	97,001	131,287	1,899	5,732	101,957	1,678	—	73,242	4,303,704
Petroleum Motor	1912	250,000	900,180	83,963	26,209	4,344	810	124,302	—	—	—	1,389,808
	1911	375,000	665,797	60,935	29,335	1,555	780	108,218	918	—	—	1,242,538
Horse Tram	1012	924,455	2,627,566	35,055	74,687	13,152	6,132	82,745	39,098	1,730	175,946	3.981,466
	1911	1,018,228	2,428,123	150,867	62,914	16,805	10,481	144,253	25,285	1,096	210,583	4,068,635
Rikisha	1912	103,675	655,852	21,225	16,706	46,340	3,627	17,452	18,763	—	221,062	1,104,702
	1911	101,250	573,569	48,585	10,554	54,264	8,834	16,896	16,470	—	200,750	1,031,172
Grand total	1912	34,018,739	217,842,445	6,562,913	2,618,956	537,592	1,127,064	8,426,757	533,898	56 221	14,206,834	285,931,429
	1911	26,381,320	165,271,705	5,909,581	2,798,067	387,114	180,487	7,700,337	981,978	3,769	3,097,079	212,771,437

(B) CAPITAL LIABILITIES.

Kind of Tramways \ Item		Share capital	Debentures & loans	Legal reserves	Special reserves	Securities	Temporary receipts	Accounts payable	Amount of dividends payable	Brought forward from 1st. half-year account	Profit for the latter half-year	Miscellaneous	Total
		yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
Electric	1912	231,719,447	29,783,899	1,936,794	1,791,821	679,256	806,991	1,134,932	37,353	709,110	2,676,045	1,950,362	273,235,010
	1911	172,685,186	12,488,055	975,113	1,698,989	53,064	183,108	1,262,097	28,125	357,708	2,152,056	1,241,887	202,125,388
Steam Engine...	1912	4.900,000	1,013,800	36,417	17,932	6,394	89,033	6,197	2,810	26,194	112,153	9,513	6,220,443
	1911	3,335,000	810,021	26,177	11,323	2,710	3,188	1,575	1,309	16,990	92,761	2,650	4,303,704
Petroleum Motor	1912	1,000,000	239,440	76,800	19,204	1,020	8,389	1,030	--	6,610	37,315	—	1,389,808
	1911	1,000,000	108,500	70,299	15,136	939	2,453	1,732	—	5,600	38,479	—	1,242,538
Horse Tram	1912	3,000,041	606,156	71,242	20,372	1,959	32,361	30,385	4,286	21,560	104,123	88,981	3,981,466
	1911	3,234,892	468,752	55,958	24,359	3,356	39,146	16,056	2,584	18,904	83,183	91,445	4,068,635
Rikisha	1912	724,839	256,147	34,392	10,713	20	142	6,441	91	13,719	26,565	31,633	1,104,702
	1911	647,566	260,623	30,698	11,064	20	133	6,321	99	12,081	29,011	33,556	1,031,172
Grand total	1912	241.344,327	31,899 342	2,155,645	1,860,042	688,649	936,916	1,178,985	44,540	777,103	2,956 301	2,080,489	285,931,429
	1911	180,902,644	23,165.921	1,158,245	1,760.871	60,089	228,028	1,287,781	32,117	410,683	2,395,490	1,369,537	212,771,437

Table No. II.

ANALYSIS OF CONSTRUCTION EXPENSES.

Kind of Tramways	Item	Permanent way	Power cables	Rolling stock	Power stations, etc.	Land	Buildings	Workshops	Cost of conveyance	Tools, etc.	General expenses	Expenses of outside undertakings, etc.	Total
		yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
Electric	1912	50,523,190	12,206,055	19,410,533	19,053,216	37,087,795	6,136,713	1,228,405	261,317	617,188	36,643,962	25,195,695	200,264,069
	1911	30,527,339	10,623,199	15,246,878	15,933,505	33,182,544	4,418,859	359,611	222,864	487,598	34,198,052	19,091,938	158,292,387
Steam Engine	1912	1,856,957	—	826,322	—	651,630	213,072	5,644	46,866	43,886	750,401	—	4,394,778
	1911	1,363,455	—	603,289	—	500,347	135,170	9,596	37,873	38,490	623,609	—	3,311,829
Petroleum Motor	1912	601,507	—	197,485	—	—	64,480	10,476	1,638	425	24,169	—	900,180
	1911	321,135	—	177,913	—	73,119	59,863	10,318	1,488	—	21,961	—	665,797

Table No. III.

MOTIVE POWER AND ROLLING STOCK.

Kind of Tramways	Item	Passenger cars				Goods wagons				
		Locos	No.	Aggregate seating capacity	No. of cars per mile open	Box	Open	Aggregate No. of wagons	Aggregate loading capacity	No. of wagons per mile open
									ton	
Electric	1912	3	3,176	147,413	6.2	65	112	177	795.0	.8
	1911	3	2,409	111,127	5.9	51	88	139	707.0	.9
Steam Engine	1912	111	155	5,559	.9	62	130	192	688.3	1.2
	1911	89	110	3,991	.8	46	104	150	518.3	1.1
Petroleum Motor	1912	—	30	957	1.3	22	38	60	194.0	2.8
	1911	—	30	1,123	1.3	22	58	80	227.0	3.7

Table No. IV.

RESULTS OF WORKING OF PASSENGER CARS.

Kind of Tramways	Item	Average mileage worked	Average No. of days opened for service	Aggregate No. of vehicle days in service	No. of trips made by cars	Vehicle mileage	Average No. of trips made by cars per day	Average vehicle mileage per day	Average No. of trips per day per car	Average vehicle mileage per day per car
		mile				*mile*				*mile*
Electric	1912	469.14	341	693,259	10,405,733	86,088,236	30,515	252,458	15.0	124
	1911	408.29	351	653,783	9,943,099	75,698,018	28,327.9	215,663.9	15.2	115.8
Steam Engine	1912	148.07	322	33,524	211,109	1,933,144	656	6,004	6.3	58
	1911	128.49	346	25,807	188,878	1,547,416	515.6	4,472.3	7.3	60.0
Petroleum Motor...	1912	13.39	365	7,573	47,323	569,726	130	1,561	6.2	75
	1911	23.89	366	7,573	47,323	569,726	129.3	1,556.6	6.2	75.2

Table No. V.

RESULTS OF THE WORKING OF GOODS WAGONS.

Kind of Tramways \ Item		Average mileage worked	Average No. of days opened for service	Aggregate No. of vehicle days in service	No. of trips made by wagons	Vehicle mileage	Average No. of wagons in service per day	Average vehicle mileage per day	Average No. of trips per day per wagon	Average vehicle mileage per day per wagon
		mile				*mile*				*mile*
Electric	1912	161.78	314	36,574	131,791	890,114	388	2,835	3.3	24
	1911	132.69	309	29,794	93,492	661,639	302.6	2,141.2	3 1	22.2
Steam Engine	1912	141.12	334	34,911	51,755	579,176	155	1,734	1.5	17
	1911	118.33	322	19,396	46,633	347,369	144 8	1,078.8	2.4	17.9
Petroleum Motor	1912	21.57	364	8,767	14,454	209,728	40	576	1.6	24
	1911	21.47	365	8,797	14,454	209,728	39.6	574 6	1.6	23.9

Table No. VI.

RESULTS OF PASSENGER TRAFFIC.

Kind of Tramways \ Item		Passengers		Luggage and Parcels		Average No. of pass. per day	Average earnings per day	Average earnings per day per mile	Average earnings per day per vehicle	Average earnings per vehicle per mile
		No.	Earnings	Amount	Earnings					
			yen	*ton*	*yen*		*yen*	*yen*	*yen*	*yen*
Electric...	1012	490,682,587	20,158,236	223,539	6,692	1,438,052	59,115	117.79	29.08	.234
	1911	463,941,549	18,636,115	215,207	5,594	1,321,771	53,110.28	124.92	28.51	.246
Steam Engine	1912	5,015,149	575,425	14,174	880	15,575	1,787	10.73	17.16	.298
	1911	4,590,969	493,275	16,749	1,727	13,269	1,430 64	10.55	19.18	.320
Petroleum Moter	1912	1,604,112	124,067	—	—	4,395	340	14.53	16.38	.218
	1911	1,625,214	131,003	—	—	4,440	357.93	14.98	17.30	.230

Table No. VII.

RESULTS OF GOODS TRAFFIC.

Kind of Tramways \ Item		Goods	Earnings	Average amount of goods per day	Average goods earnings per day	Average goods earnings per day per mile	Average goods earnings per day per vehicle	Average per vehicle per mile
		ton	*yen*	*ton*	*yen*	*yen*	*yen*	*yen*
Electric...	1912	349,888	185,824	1,114	592	3.13	5.08	.209
	1911	244,692	132,169	792	427.73	2.73	4.44	.200
Steam Engine	1912	133,542	78,227	400	234	1.51	2.24	1.35
	1911	73,153	49,631	227	154.13	1.15	2.56	.143
Petroleum Motor...	1912	101,493	33,744	279	93	4.27	3.85	.161
	1911	44,064	19,381	121	53.10	2.47	2.21	.092

Table No. VIII.

EARNINGS AND EXPENDITURES.

Kind of Tramways / Item		Earnings				Expenditures							Balance(profit)
		Passenger	Goods	Others	Total	Maintenace of way	Motive power	Traffic	General	Taxes and dues	Others	Total	
		yen	yen	yen	yen	yen	yen	yen	yen	yen	yen	yen	yen
Electric	1912	20,190,762	193,329	610,545	21,003,636	2,251,876	2,168,204	4,667,139	1,473,664	452,685	795,520	11,809,178	9,794,458
	1911	18,709,689	140,318	450,979	19,300,986	2,111,565	2,040,736	3,624,387	1,379,204	1,015,422	688,078	10,859,212	8,441,774
Steam Engine... ...	1912	542,704	70,721	6,345	622,770	83,510	70,317	112,186	81,557	33,024	750	381,344	241,426
	1911	419,701	41,482	5,090	466,273	46,500	88,917	40,171	50,632	29,649	15,995	271,864	194,409
Petroleum	1912	124,067	33,744	4,067	161,878	3,763	52,915	22,619	9,717	14,158	—	103,169	58,709
	1911	131,003	19,381	6,243	156,627	30,324	17,943	24,330	10,012	6,921	—	89,530	67,097

EARNINGS AND EXPENDITURES.—*Continued.*

Kind of Tramways / Item		Miscellaneous Receipts			Miscellaneous Expenses			Net profit	Brought over from last account	Profit disposed					Carrid forward to next account
		Electric lighting and power supply	Interest, etc.	Total	Electric lighting and po er expenses	Interest, etc.	Total			Reserve	Bonus	Dividend		Others	
												Amount	Percentage		
		yen	yen	yen	yen	yen	yen	yen	yen	yen	yen	yen	yen	yen	yen
Electric	1912	3,867,029	1,330,203	5,197,232	1,673,468	5,844,937	7,518,405	7,473,285	948,057	858,768	241,488	4,249,107	—	2,383,102	688,877
	1911	2,687,432	751,016	3,438,448	774,019	2,966,713	3,740,732	8,139,490	525,504	699,662	253,430	5,155,770	—	1,368,800	1,187,332
Steam Engine... ...	1912	231,805	1,985	233,794	204,416	60,765	265,181	210,039	24,701	17,846	9,027	187,305	—	476	20,086
	1911	1,569	13,257	14,826	—	32,471	32,471	176,764	11,798	10,870	6,080	147,700	—	—	23,921
Petroleum Motor ...	1912	—	8,943	8,943	—	44	44	67,608	10,691	9,350	3,379	58,160	080	—	7,410
	1911	—	3,170	3,170	—	—	—	70,267	55,214	61,295	3,500	50,000	080	—	10,691

EARNINGS AND EXPENDITURES—*Continued.*

Kind of Tramways / Item		Expenditure per 100 yen of earnings	Average Earnings and Expenditures per day			Average Earnings and Expenditure per mile			Average Earnings and Expenditure			Average Earnings and Expenditure per vehicle per mile		
			Earnings	Expenditures	Profit	Earnings	Expenditure	Profit	Earnings	Expenditure	Profit	Earnings	Expenditure	Profit
		yen	yen	yen	yen	yen	yen	yen	yen	yen	yen	yen	yen	yen
Electric	1912	71.48	71,685.00	51,238.26	20,446.74	43,963.65	23,462.43	20,501.22	120.51	64.32	56.20	.241	.129	.112
	1911	46.21	—	—	—	45,406.61	25,546.88	19,859.73	124.23	69.89	54.34	254	.143	.111
Steam engine	1912	75.55	2,343.54	1,768.88	574.66	4,465.58	2,734.43	1,731.15	12.21	7.47	4.74	.280	.172	.108
	1911	63.26	—	—	—	4,173.96	2,433.66	1,740.30	11.43	6.65	4.77	.303	.177	.126
Petroleum Motor ...	1912	60.42	468.00	282.78	185.22	6,920.82	4,410.82	2,510.00	18.96	12.08	6.88	.208	.132	.076
	1911	56.03	436.60	244.62	191.98	6,556.17	3,747 59	2,808.58	17.91	10.24	7 67	.201	.115	.086

Table No. IX.

ACCIDENTS

Kind of Tramways	Item	Accidents to tram operation						Accidents to tracks								
								Killed					Wounded			
		Collided	Overturned	Service obstructed intentionally	Electric current stopped over 15 min.	Others	Total	Passengers	Employees	Passers-by	Others	Total	Passengers	Employees	Passers-by	Others	Total
Electric	1912	953	1,169	222	412	451	3,207	13	15	126	—	154	1,575	113	1,340	46	3,074
	1911	536	1,060	211	303	511	2,621	14	8	86	1	109	1,646	138	1,751	--	3,535
Steam Engine ...	1912	4	83	41	—	5	133	—	2	7	—	9	2	3	21	4	26
	1911	7	95	41	—	9	152	1	—	7	4	12	23	10	16	—	53
Petroleum Motor ...	1912	26	96	5	—	—	127	—	—	3	—	3	11	6	20	—	37
	1911	15	61	—	—	—	76	—	—	1	—	1	7	—	9	—	16

Table No. X.

DIRECTORS AND STAFF

Kind of Tramways	Item	Board of Directors		General Affairs		Construction and Maintenance of Way		Traffic		Accounts and Stores		Total	
		No.	Monthly salary	No.	Monthly salary	No.	Monthly salary	No.	Monthly salary	No.	Monthly salary	No.	Monthly salary
			yen		*yen*		*yen*		*yen*		*yen*		*yen*
Electric	1912	405	14,904	1,718	37,038	7,654	155,312	15,033	228,994	299	7,863	25,109	444,111
	1911	340	13,563	1,027	20,904	9,415	171,071	15,946	263,057	618	12,375	27,346	480,970
Steam Engine... ...	1912	64	516	62	1,287	190	2,733	580	6,839	19	291	915	11,666
	1911	51	669	39	943	86	1,366	480	5,748	18	331	674	9,057
Petroleum Motor ...	1912	10	115	2	29	7	196	120	1,484	—	—	139	1,824
	1911	10	115	2	27	7	115	123	1,487	—	—	142	1,741

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A. PROGRESS OF STATE RAILWAYS

1. OFFICIALS IN CHARGE OF STATE RAILWAYS SINCE THE INAUGURATION OF THE SERVICE

Tenure of Office	Title	Name
March—July 1870	Director	Mr. Kagenori Ueno
	Vice-Director	Mr. Maremasa Hirai
August—October 1870	Director	Mr. Tomozane Yoshii
October 1870—August 1871	Director	Mr. Katsu Inoue
August 1871—January 1877	Director	do.
	Vice-Director	Mr. Sukemasa Ota
January 1877—March 1893	Director	Viscount Katsu Inoue
March 1893—March 1903	Director	Dr. Soichiro Matsumoto
March 1903	Acting Director	Dr. Seijiro Hirai
March—December 1903	Director	Dr. Kintake Furuichi
December 1903—October 1904	Acting Director	Dr. Seijiro Hirai
October 1904—March 1907	Director	do.
April 1907—December 1908	President	do.
	Vice-President	Mr. Ichiji Yamanouchi
December 1908—August 1911	President	Baron Shimpei Coto
	Vice-President	Dr. Seijiro Hirai
August 1911—December 1912	President	Mr. Takashi Hara
	Vice-President	Dr. Seijiro Hirai
December 1912—February 1913	President	Baron Shimpei Goto
	Vice-President	Dr. Seijiro Hirai
February 1913	President	Mr. Takejiro Tokonami
	Vice-President	Dr. Seijiro Hirai

2. MILEAGE OPEN TO TRAFFIC

Year	Mileage open to Traffic									
	Mileage open to traffic	Average mileage worked	Mileage open to traffic					Track-mileage	No. of stations	No. of stations per 10 miles of tracks
			Single	Double	Triple	Quadruple and over	Total			
	m.	*m.*	*m.c.*	*m.c.*	*m.c.*	*m.c.*	*m.c.*	*m.c.*		
1886—1887	208.8	195.0	189 61	19.03	—	—	208.64	—	57	2.7
1887—1888	244.5	235.7	225.37	19.03	—	—	244.40	—	64	2.6
1888—1889	445.2	335.3	426.16	19.03	—	—	445.19	—	97	2.2
1889—1890	550.6	534.0	509.41	41.08	—	—	550.49	—	113	2.1
1890—1891	550.6	550.6	509.41	41.08	—	—	550.49	—	115	2.1
1891—1892	550.6	550.6	509.41	41.08	—	—	550.49	—	117	2.1
1892—1893	550.6	550.6	509.41	41.08	—	—	550.49	—	117	2.1
1893—1894	557.6	557.6	516.41	41.08	—	—	557.49	698.27	117	2.1
1894—1895	580.9	565.3	529.57	51.12	—	—	580.69	757.47	122	2.1
1895—1896	593.3	586.4	532 70	60.32	—	—	593.22	792.18	127	2.1
1896—1897	631.8	620.7	545.26	86.36	—	—	531.62	870.64	134	2.1
1897—1898	661.8	647.7	575.29	86.36	—	—	661.65	910.17	139	2.1
1898—1899	718.1	691.7	583.07	134.79	—	—	718.06	1,009.43	151	2.1
1899—1900	749.3	747.9	593.13	156.11	—	—	749.24	1,082.75	163	2.2
1900—1901	823.4	801.4	639.69	180.42	3.04	—	823.35	1,197.41	176	2.1
1901—1902	905.4	873.9	678.71	223.34	3.04	—	905.29	1,344.53	192	2.1
1902—1903	1,062.6	976.9	810.79	248.34	3.04	—	1,062.37	1,555.05	227	2.1
1903—1904	1,146.0	1,104.4	868.45	274.26	3.04	—	1,145.75	1,688.74	250	2.2
1904—1905	1,211.0	1,174.9	925.02	282.66	3.04	—	1,210.72	1,785.12	263	2.2
1905—1906	1,469.9	1,470.4	1,209.28	287.22	3.04	—	1,499.54	2,121.65	315	2.1
1906—1097	3,093.2	2,150.2	2,701.08	385.64	3.64	Quadruple 1.33	3,092.09	4,319.42	722	2.3
1907—1908	4,144.8	3,982.3	3,984.36	454.39	3.64	„ 1.33	4,444.12	6,155.79	1,153	2.6
1908—1909	4,542.9	4,512.8	3,981.28	555.63	3.64	„ 1.33	4,542.28	6,432.50	1,175	2.6
1909—1910	4,624.4	4,580.2	3,994.28	624.16	.40	„ 4.57	4,623.61	6,624.58	1,212	2.6
1910—1911	4,870.3	4,767.3	4,213.37	651.02	.40	„ 4.57	4,869.56	7,052.61	1,288	2.6
1911—1912	5,044.1	4,950.3	4,358 55	679.28	.40	„ 4.57	5,043.20	7,474.27	1,389	2.8
1912—1913	5,217.0	5,129.0	4,497.12	714.67	.40	Quadruple 3.24 Quintuple .56 Sextuple .57	5,217.16	7.774.46	1,441	2.8

N.B.—The returns of the above table do not include the railway in Chosen, Formosa, South Manchuria and Karafuto (Sagalien), and also private railways except the line leased from the Yokohama Railway Co. which is included in the returns since 1910.

Year	Traffic											
	Train mileage				Average number of trains per day	Vehicle mileage						Average No. of vehicles per train
	Pass. trains	Goods trains	Mixed trains	Total		Pass. cars	Electlic cars	Steam motor cars	Goods wagons	Total	Car Mileage per day per car	Wagon Mileage per day per wagon	
						m.	*m.*	*m.*	*m.*	*m.*	*m.*	*m.*	*No.*
1886—1887	—	—	—	—	—	—	—	—	11,290,108	36,546,571	—	—	13 5
1887—1888	—	—	—	—	—	—	—	—	13,959,506	40,681,268	109.4	24.1	12.3
1888—1889	—	—	—	—	—	—	—	—	18,532,054	45,646,316	107.0	29.5	12.9
1889—1890	—	—	—	—	—	—	—	—	20,246,395	49,014,462	109.7	35.8	13.1
1890—1891	1,895,774	613,475	411,022	2,920,271	14.5	25,256,463	—	—	23,937,259	56,042,483	118.8	38.9	13.4
1891—1892	2,067,522	713,035	521,743	3,302,300	16.4	26,721,762	—	—	26,480,420	62,910,709	127.5	40.3	14.5
1892—1893	2,027,328	868,184	640,757	3,536,269	17.6	27,114,262	—	—	24,586,784	65,325,758	125.1	33.3	13 6
1893—1894	2,016,170	896,447	815,320	3,777,937	18.3	28,768,067	—	—	31,423,699	74,852,275	130.5	36.0	14.0
1894—1895	2,083,795	1,088,655	1,002,188	4,174,638	20.2	32,105,223	—	—	28,966,603	88,537,119	137.6	40.1	13.6
1895—1896	2,379 842	1,201,894	749,273	4,331,009	20.2	36,430,289	—	—	52,530,745	103,285,244	129.3	53.1	14.5
1896—1897	2,336,097	1,283,151	1,187,448	4,806,696	21.2	40,738,974	—	—	63,291,330	118,334,259	131.4	54.1	15.0
1897—1898	2,179,423	1,455,659	1,723,027	5,358,109	22.7	43,428,576	—	—	63,019,304	120,576,398	127.5	49.0	15·1
1898—1899	2,485,388	1,878,370	2,132,503	6,496,351	25.7	49,570,516	—	—	69,055,106	130,797,417	125.5	42.0	15.5
1899—1900	2,511,050	2,107,590	2,516,708	7,135,348	26.1	50,754,499	—	—	77,714,472	148,281,499	106.5	40.7	15.2
1900—1901	2,742,301	2,616,617	2,517,987	7,879,905	26.9	55,042,929	—	—	85,066,933	146,193,744	102.4	51.3	16.1
1901—1902	2,699,042	2,391,520	7,883,973	7,979,535	25.0	57,557,094	—	—	108,578,253	176,595,632	105.4	58.2	16.5
1902—1903	2,883,261	2,452,584	3,094,347	8,430,192	23.6	61,742,311	414,520	—	201,877,638	311,673,783	110.7	44.5	16.4
1903—1904	3,462,288	2,851,775	3,416,604	9,730,667	24.1	70,567,027	819,327	—	413,775,971	635,463,201	135.0	43.1	16.9
1904—1905	2,447,212	2,110,066	3 543,471	9,100,749	21.2	61,126,811	1,021,137	—	518,082,833	771,844,901	133.8	47.8	17.8
1905—1906	2,530,128	2,787,045	4,393,091	10,710,264	20.0	68 017,379	1,442,347	32,857	515,180,547	770,231,746	127.6	48.0	18.2
1906—1907	5,643,474	7,324,632	5,992,371	18,960,477	24.2	109,796,145	3,256,659	33,011	561,736,521	831,056,045	128.4	49.6	18.6
1907—1908	12,001,780	14,101,480	11,457,928	37,561,188	25.8	221,687,230	3,818,820	147,667	607,749,146	899,629,853	111.3	46.1	18.5
1908—1909	14,073,162	16,899,070	12,450,735	43,422,967	26.4	253,762,068	4,686,914	288,790	662,992,352	988,255,987	115.7	46.2	18.3
1909—1910	14,283,152	15,455,959	12,696,717	42,435,828	25.4	255,051,199	—	—	—	—	—	—	—
1910—1911	15,660,056	16,394,111	12,716,551	44,770,718	25.7	270,219,524	—	—	—	—	—	—	—
1911—1912	17,594,094	18,408,601	12,728,089	48,730,784	26.9	291,880,707	—	—	—	—	—	—	—
1912—1913	20,346,945	20,904,690	12,742,297	53,993,932	28.8	320,287,931	—	—	—	—	—	—	—

N.B.—In the train mileage since 1906 is included the number of miles run by electric trams and steam motor cars at the rate of 10 cars = 1 train.

Year	Traffic																
	Passengers																
	No. of passengers carried				No. of pass. carried one mile				Average mileage per passenger				Rate per every 1000 of passengers			Average No. of pass. per car per mile	Average No. of travels per capita of population
	1st cl.	2nd cl.	3rd cl.	Total	1st cl.	2nd cl.	3rd cl.	Total									
1886—1887	—	—	—	3,761,473	—	—	—	—	—	—	—	—	—	—	—	—	.31
1887—1888	—	—	—	5,919,383	—	—	—	—	—	—	—	—	—	—	—	—	.74
1888—1889	—	—	—	8,404,776	—	—	—	—	—	—	—	—	—	—	—	—	.63
1889—1890	—	—	—	11,365,937	—	—	—	—	—	—	—	—	—	—	—	—	.82
1890—1891	—	—	—	11,265,383	—	—	—	284,831,381	—	—	—	25.3	—	—	—	11.28	.74
1891—1892	—	—	—	11,787,913	—	—	—	270,063,493	—	—	—	22.9	—	-	—	10.11	.77
1892—1893	—	—	—	12,873,547	—	—	—	298,858,693	—	—	—	23.2	—	—	—	11.02	.84
1893—1894	80,731	739,813	13,623,783	14,444,327	3,145,387	22,366,736	316,115,212	341,627,335	39.0	30.2	23.2	23.7	6	51	943	11.88	.93
1894—1895	86,550	785,074	14,012,362	14,883,986	3,556,639	25,266,614	474,713,535	403,536,788	41.1	32.2	26.7	27.1	6	53	941	12.57	.94
1895—1896	128,437	1,142,306	17,493,644	18,764,387	5,437,247	37,450,124	480,157,208	523,044,579	42.3	32.8	27.4	27.9	7	61	937	14.36	1.17
1896—1897	152,288	1,452,290	21,146,171	22,750,749	6,022 848	41,822,615	488,079 940	535,925,403	39.5	28.8	23.1	23.6	7	64	929	13.16	1.45
1897—1898	193,038	1,826,986	25.902,553	27,922,577	6,943,791	40,604,301	566,787,835	623,335,927	36.0	27.2	21.9	22.3	7	65	928	14.35	1.65
1898—1899	223,657	2,010,511	29,215,371	31,449,539	7,609,335	52.387,027	612,572,345	673,068,707	34.0	26.3	21.0	21.4	7	64	928	13.58	1.76
1899—1900	197,576	1,992,779	26,117,963	28 308,318	7,282,250	57,755,732	564,509,720	629,547,711	36.9	29.0	21.6	22.2	7	70	923	12.40	1.34
1900—1901	204,803	2,259,768	28,995,374	31,459,645	8,370,432	66,425.529	631,610,735	706,406,690	40.9	29.4	21.8	22.5	6	72	922	12.83	1.52
1901—1902	195,460	2,091.526	29,309,415	31,596,401	8,947,468	64,495,881	643,515,674	716,959,023	45.8	30.8	22.0	22.7	6	66	928	12.46	1.41
1902—1903	207,905	2,023,665	29,170,092	31,401,662	9,534,171	66,551,048	647,126,290	723,211,509	45.9	32.9	22.2	23.0	7	64	929	11.71	1.36
1903—1904	229,321	2,105,747	31,143,127	33,478,195	10,870,151	79,581,450	719.975,039	810,426,640	47 4	37.8	23.1	24.2	7	63	930	11.48	1.26
1904—1905	172,501	1,657,158	26,387,534	28,217.193	8,558,821	69,436,687	732,022,097	810,017,605	49.6	41.9	27.7	28.7	6	59	935	13.25	1.10
1905—1906	221,649	1,990,154	28.815,161	31,026,964	12,753,306	93,050,154	839,263,364	945,066,824	67.5	46.8	29.1	30.5	7	64	929	13.89	1.21
1906—1907	274,920	2,845.902	44,446,098	47,566,920	16,430,320	126,232,526	1,082,073,966	1,224,736,821	56.8	44.4	24.3	25.7	6	60	934	11.15	1.29
1907—1908	365,345	5,131,893	95,618,501	101,115.739	24,045,697	219.497,987	2,109,727,081	2,353,270,765	65.8	42.8	22.1	23.3	3	51	946	10.62	2.21
1908—1909	396,449	6,257,064	116,574 030	123,227,543	26,131,252	263,721,910	2,453,350,696	2,743,203,558	65.9	42.1	21.0	22.3	3	51	946	10.81	2.64
1909—1910	410,707	6,327,549	121,568,704	128,306,960	27,971.459	273,212,346	2,511,145,303	2,812,329,108	68.1	43.2	20.7	21.9	3	49	946	11.03	2.72
1910—1911	432,925	6,500,601	131,706,180	138,629,706	29,454,126	297,285,823	2,711,997,917	3,038,736,066	69.6	45.7	20.6	21.9	3	47	950	11.25	2.91
1911—1912	444,102	7,068,115	143,565,562	151,077,779	31,779,624	334,521,041	3,016,285,740	3,382,586,411	71.6	47.3	21.0	22.4	3	47	950	11.59	3.09
1912—1913	470,237	7,414,035	152,827,465	160,711,737	33,539,259	367,907,593	3,224,869,647	3,626,316,499	71.3	49.6	21.1	22.6	3	46	951	11.15	3.25

N.B—The average number of travels per capita of the population is computed on the actual number of inhabitants in the prefectures traversed by the State lines.

Year	Traffic																	
	Goods																	
	Parcels & luggage carried			Tonnage of goods hauled				Aggregate tonnage of goods hauled one mile				Average mileage travelled per ton of goods				Average tonnage per wagon per mile	Average tonnage of goods per capita
	Parcels	Luggage	Total	Ordinary	Express	Carload	Total	Ordinary	Express	Carload	Total	Ordinary	Express	Carload	Total		
	ton	*ton*	*ton*	*ton*	*ton*	*ton*	*ton*	*ton*	*ton*	*ton*	*ton*	*m.*	*m.*	*m.*	*m.*	*ton*	*ton*
1886—1887	—	—	—	—	—	—	419,707	—	—	—	—	—	—	—	—	—	.03
1887—1888	—	—	—	—	—	—	569,232	—	—	—	—	—	—	—	—	—	.05
1888—1889	—	—	—	—	—	—	699,154	—	—	—	—	—	—	—	—	—	.05
1889—1890	—	—	—	—	—	—	616,892	—	—	—	—	—	—	—	—	—	.04
1890—1891	—	—	4,006	—	—	—	671,361	—	—	—	25,744,580	—	—	—	38.3	2.2	.04
1891—1892	—	—	4,690	—	—	—	806,511	—	—	—	30,456,870	—	—	—	37.8	2.2	.05
1892—1893	—	—	5,487	—	—	—	982,404	—	—	—	44,827,316	—	—	—	45.6	2.4	.06
1893—1894	—	—	5,188	—	—	—	1,076,689	—	—	—	54,432,438	—	—	—	50.6	2.7	.07
1894—1895	—	—	7,431	250,633	—	767,665	1,018,298	10 463,059	—	61,870,945	72,354,004	41.7	—	80.6	71.0	3.0	.06
1895—1896	—	—	8,086	302,714	—	797,345	1,100,059	12,712,572	—	64,110,514	76,823,086	42.0	—	80.4	69.8	2.9	.07
1896—1897	—	—	10,720	239,779	—	1,026,340	1,266,119	9,266,149	—	65,068,670	74,334,819	38.6	—	63.4	58.7	3.0	.08
1897—1898	—	—	15,064	260,761	—	1,297,433	1,558,194	9,832,599	—	89,648,278	99,486,877	37.7	—	69.1	63.8	3.2	.09
1898—1899	—	—	16,130	285,642	2,236	1,477,581	1,765,459	11,324,864	639,733	120,530,900	132,495,497	39.6	286.1	81.6	75.0	3.4	.10
1899—1900	—	—	19,050	390,103	4,982	1,910,939	2,306,024	13,244,941	1,198,128	160,863,653	175,309,722	34.0	240.5	84.2	76.0	3.3	.11
1900—1901	—	—	21,898	433,378	6,908	2,201,737	2,642,023	14,730,303	1,633,572	203,615,766	219,979,641	34.0	236.5	92.5	83.3	3.5	.13
1901—1902	14,653	2,071	16,724	323,652	11,440	2,181,049	2,516,141	13,182,332	2,579,463	195,832,835	211,594,630	40.7	225.5	89.8	84.1	3.4	.11
1902—1903	14,106	2,011	16,117	336,262	15,118	2,620,350	2,971,730	13,557,195	3,448,510	224,277,362	241,283,097	40.3	228.1	85.6	81.2	3.5	.13
1903—1904	15,824	2,403	18,227	345,162	14,482	2,885,022	3,244,666	14,125,914	3,333,644	258,063,225	275,522,813	40.9	230.2	89.4	84.9	3.5	.12
1904—1905	20,546	2,425	22,971	359,950	11,404	2,955,594	3,326,948	19,665,004	2,734,595	310,444,485	332,844,084	54.6	239.8	105.0	100.0	3.9	.13
1905—1906	24,674	3,750	28,424	480,558	24,323	3,893,613	4,403,494	25,219,040	5,410,911	367,059,762	397,689,713	52.5	222.5	94.2	90.3	3.7	.17
1906—1907	30,448	4,672	35,120	882,349	25,853	6,712,326	7,620,528	61,789,035	6,378,986	645,346,334	713,514,355	70.0	246.7	96.1	93.6	3.5	.21
1907—1908	47,940	7,076	55,016	1,920,933	30,450	16,360,790	18,312,223	153,695,717	8,144,427	1,279,284,867	1,441,125,013	80.0	267.5	78.2	78.7	3.5	.40
1908—1909	55,661	8,358	64,019	2,270,392	28,349	21,225,818	23,524,559	190,760,274	7,806,657	1,630,862,227	1,829,429,158	84.0	275.4	76.8	77.8	3.5	.50
1909—1910	58,585	9,749	68,334	2,335,753	27,197	21,292,670	23,655,620	202,980,717	7,391,377	1,700,825,346	1,911,197,440	86.9	271.8	79.9	80.8	3.7	.50
1910—1911	65,420	9,447	74,867	2,579,606	27,789	22,874,473	25,481,868	234,195,572	7,623,992	1,885,014,909	2,126,834,473	90.8	274.4	82.4	83.5	3.8	.52
1911—1912	74,631	10,586	85,217	2,811,202	26,644	26,499,208	29,337,054	260,506,546	7,357,152	2,080,077,777	2,347,871,475	92.7	276.1	78.5	80.0	3.9	.60
1912—1913	98,103	11,377	109,480	2,998,720	25,352	29,513,273	32,537,345	283,246,117	6,963,632	2,401,254,425	2,691,464,174	94.5	274.7	81.4	82.7	4.1	.64

N.B.—The average tonnage of goods per capita of the population is computed on the actual number of inhabitants in the prefectures traversed by the State lines open to traffic.

Year	Traffic																		
	Passenger Fares															Charges on pacels and luggage			Charges on postal matter
	Fares				Average per pass.				Average per pass. per mile				Out of every 1,000 *yen* of receipts						
	1st cl.	2nd cl.	3rd cl.	Total	1st cl.	2nd cl.	3rd cl.	Total	1st cl.	2nd cl.	3rd cl.	Total	1st cl.	2nd cl.	3rd cl.	Parcels	Luggage	Total	
	yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
1890—1891	—	—	—	3,183,383	—	—	—	.283	—	—	—	.0112	—	—	—	—	—	97,911	31,651
1891—1892	—	—	—	3,026,869	—	—	—	.257	—	—	—	.0112	—	—	—	—	—	101,804	34,927
1892—1893	—	—	—	3,335,609	—	—	—	.259	—	—	—	.0112	—	—	—	—	—	126,497	35,322
1893—1894	—	—	—	3,791,501	—	—	—	.262	—	—	—	.0111	—	—	—	—	—	120,449	46,573
1894—1895	—	—	—	4,229,005	—	—	—	.234	—	—	—	.0105	—	—	—	—	—	179,685	54,067
1895—1896	—	—	—	5,656,410	—	—	—	.301	—	—	—	.0108	—	—	—	—	—	212,317	56,985
1896—1897	—	—	—	5,984,581	—	—	—	.263	—	—	—	.0112	—	—	—	—	—	269,738	74,528
1897—1898	—	—	—	7,003,795	—	—	—	.251	—	—	—	.0112	—	—	—	—	—	372,548	91,819
1898—1899	—	—	—	7,692,869	—	—	—	.245	—	—	—	.0114	—	—	—	—	—	375,223	111,184
1899—1900	—	—	—	9,313,140	—	—	—	.325	—	—	—	.0146	—	—	—	—	—	417,675	144,420
1900—1901	—	—	—	10,313,117	—	—	—	.328	—	—	—	.0146	—	—	—	—	—	447,117	169,406
1901—1902	353,612	1,454,161	8,684,333	10,492,106	1.809	.695	.296	.332	.0395	.0225	.0135	.0146	34	138	828	314,753	88,967	403,720	196,586
1902—1903	391,381	1,625,516	9,348,849	11,365,746	1.882	.803	.320	.362	.0411	.0244	.0144	.0157	34	143	823	323,246	82,569	405,815	226,922
1903—1904	436,886	1,908,565	10,084,584	12,430,035	1.905	.906	.324	.371	.0402	.0240	.0140	.0153	35	154	811	355,517	93,506	449,023	245,646
1904—1905	333,127	1,723,573	9,622,752	11,679,452	1.931	1.040	.365	.414	.0389	.0248	.0131	.0144	28	148	824	431,713	87,178	518,891	249,013
1905—1906	513,474	2,122,470	10,881,689	13,517,633	2.317	1.066	.373	.436	.0403	.0228	.0130	.0143	38	157	805	470,873	100,320	571,193	294,628
1906—1907	640,806	2,925,123	15,459,349	19,025,278	2.331	1.028	.348	.400	.0290	.0232	.0143	.0155	34	154	812	754,855	149,843	904,698	449,873
1907—1908	864,939	4,602,695	29,646,132	35,113,766	2.367	.897	.310	.347	.0360	.0210	.0141	.0149	25	121	844	1,238,378	244,349	1,482,727	829,105
1908—1909	849,416	5,007,936	33,230,610	39,087,962	2.143	.800	.285	.317	.0325	.0190	.0135	.0142	22	128	850	1,380,853	285,694	1,666,547	948,024
1909—1910	872,912	5,065,207	33,432,413	39,370,532	2.125	.801	.275	.307	.0312	.0185	.0133	.0140	22	129	849	1,630,511	282,332	1,912,843	974,773
1910—1911	949,446	5,645,563	35,549,987	42,144,996	2.245	.868	.270	.304	.0322	.0190	.0131	.0139	23	134	843	1,881,122	308,205	2,189,327	980,379
1911—1912	1,016,166	6,323,073	39,527,075	46,866,314	2.288	.895	.275	.310	.0320	.0189	.0131	.0139	22	135	843	2,159,464	375,368	2,534,832	1,006,562
1912—1913	1,115,375	7,050,567	41,827,653	49,993,595	2.372	.951	.274	.311	.0333	.0192	.0130	.0138	22	141	837	2,584,899	381,965	2,966,864	1,051,475

Year	Traffic															
	Goods Rates															
	Rates				Average per ton				Average per ton per mile				Terminal charges	Average terminal charges per ton	Average terminal charges per ton per mile	Shipping receipts
	Ordinary	Express	Carload	Total	Ordinary	Express	Carload	Total	Ordinary	Express	Carload	Total				
	yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
1886—1887	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1887—1888	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1888—1889	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1889—1890	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1890—1891	350,697	—	428,101	778,798	—	—	—	1.160	—	—	—	.0303	—	—	—	—
1891—1892	340,651	—	489,394	830,045	—	—	—	1.029	—	—	—	.0273	—	—	—	—
1892—1893	414,386	—	660,956	1,075,342	—	—	—	1.095	—	—	—	.0240	—	—	—	—
1893—1894	477,089	—	766,261	1,243,350	—	—	—	1.155	—	—	—	.0228	—	—	—	—
1894—1895	612,332	—	977,234	1,589,566	2.443	—	1.273	1.561	.0585	—	.0158	.0220	—	—	—	—
1895—1896	738,757	—	1,069,732	1,808,489	2.440	—	1.342	1.644	.0581	—	.0167	.0235	—	—	—	—
1896—1897	577,018	—	1,069,305	1,646,323	2.406	—	1.042	1.300	.0623	—	.0164	.0221	—	—	—	—
1897—1898	632,963	—	1,431,754	2,064,717	2.427	—	1.104	1.325	.0644	—	.0160	.0208	—	—	—	—
1898—1899	661,773	50,019	2,071,252	3,783,044	2.317	22.370	1.402	1.576	.0584	.0782	.0172	.0201	—	—	—	—
1899—1900	806,316	105,896	2,743,387	3,655,599	2.067	21.256	1.436	1.585	.0609	.0884	.0171	.0209	—	—	—	—
1900—1901	899,204	141,764	3,334,228	4,375,196	2.075	20.522	1.514	1.656	.0610	.0868	.0164	.0199	—	—	—	—
1901—1902	797,380	220,526	3,279,209	4,297,115	2.464	19.277	1.504	1.708	.0605	.0855	.0167	.0203	515,822	.206	.0025	—
1902—1903	834,792	278,727	3,778,192	4,891,711	2.483	18.437	1.442	1.646	.0616	.0808	.0168	.0203	604,881	.205	.0025	—
1903—1904	878,016	270,693	4,337,548	5,486,257	2.544	18.692	1.503	1.691	.0622	.0815	.0168	.0199	626,442	.194	.0023	—
1904—1905	1,093,764	207,048	5,212,194	6,513,006	3.039	18.156	1.763	1.958	.0556	.0757	.0168	.0196	602,375	.182	.0018	—
1905—1906	1,336,886	410,133	6,234,240	7,981,259	2.782	16.862	1.599	1.812	.0530	.0758	.0170	.0201	802,610	.183	.0020	—
1906—1907	2,510,872	494,879	9,546,380	12,552,131	2.846	19.142	1.422	1.647	.0406	.0776	.0148	.0176	1,631,873	.215	.0023	167,347
1907—1908	4,960,059	647,180	19,478,340	25,085,579	2.582	21.254	1.191	1.370	.0323	.0795	.0152	.0174	4,095,863	.224	.0029	835,547
1908—1909	5,992,950	623,643	23,805,430	30,422,023	2.640	21.099	1.122	1.293	.0314	.0799	.0146	.0166	5,147,562	.219	.0028	1,389,494
1909—1910	6,712,423	652,812	24,158,469	31,523,704	2.874	24.003	1.135	1.333	.0331	.0883	.0142	.0165	5,276,263	.223	.0028	1,571,029
1910—1911	7,660,772	676,827	26,641,096	34,978,695	2.970	24.356	1.165	1.373	.0327	.0888	.0141	.0164	5,779,619	.227	.0027	1,903,947
1911—1912	8,690,575	644,908	29,634,901	38,970,384	3.091	24.205	1.118	1.328	.0334	.0877	.0142	.0166	6,603,798	.225	.0028	2,099,298
1912—1913	9,913,327	604,480	35,236,891	45,754,701	* 1.492	23.848	—	1.512	* .0181	.0868	—	.0183	3,450,062	—	—	2,140,838

N.B.—In computing the average terminal charges, the tonnage of goods of express consignment and the tonnage of the same hauled one mile are left out of count

Figures marked with the asterisk (*) denote the aggregate sum of ordinary and corload consignment rates.

In computing 'Average per ton per mile' for 1912—13 terminal charges are taken into account except in the case of express consignment.

Terminal charges were discontinued on Oct. 1st, 1912.

Year	Motive power and rolling and floating stock																				Ships (chartered ships inc'd)			
	Locos					Passenger carriages								Goods wagons										
	Tank	Tender	Abt	Total	No. of locos per 10 miles of track	Bogie	4-wheel	Total	No. of pass. cars per 10 miles of track	No. of seats	No. of seats per car	No. of pass. per seat	Average No. of seats per milc of tracks	Covered	Open	Others	Total	No. of wagons per 10 miles of track	Tonnage of goods	Average weight of goods per mile of track	No.	Gross tonnage	Chartered-ships No.	Chartered-ships Gross tonnage
																			ton			*ton*		*ton*
1886—1887	39	18	—	57	2.7	9	275	284	13.6	—	—	—	—	437	322	—	759	36.4	—	—	—	—	—	—
1887—1888	46	18	—	64	2.6	9	298	307	12.6	—	—	—	—	485	468	—	953	39.0	—	—	—	—	—	—
1888—1889	60	18	—	78	1.8	13	385	398	8.9	—	—	—	—	552	484	—	1,036	23.3	—	—	—	—	—	—
1889—1890	63	34	—	97	1.8	69	455	524	9.5	—	—	—	—	674	525	—	1,199	21.8	—	—	—	—	—	—
1890—1891	81	36	—	117	2.1	69	465	534	9.7	—	—	—	—	742	529	—	1,271	23.1	—	—	—	—	—	—
1891—1892	81	42	—	123	2.2	75	539	614	11.2	—	—	—	—	902	776	—	1,678	30.5	—	—	—	—	—	—
1892—1893	87	42	4	133	2.4	75	562	637	11.6	—	—	—	—	960	786	—	1,746	31.7	—	—	—	—	—	—
1893—1894	90	48	4	142	2.5	79	575	654	11.7	—	—	—	—	990	854	—	1,844	33.1	—	—	—	—	—	—
1894—1895	90	64	4	197	2.9	79	606	685	11.8	—	—	—	—	1,099	1,004	2	2,105	36.2	—	—	—	—	—	—
1895—1896	97	68	6	171	2.9	87	625	712	12.0	—	—	—	—	1,224	1,002	2	2,228	37.6	—	—	—	—	—	—
1896—1897	99	78	6	183	2.9	87	716	803	12.7	—	—	—	—	1,265	1,054	2	2,321	37.8	—	—	—	—	—	—
1897—1898	99	153	6	258	3.9	98	780	878	13.3	32,921	34	.42	50	1,459	1,416	2	2,877	43.5	19,754	30	1	—	—	—
1898—1899	117	183	10	310	4.3	110	864	974	13.6	36,146	33	.41	50	1,638	1,547	2	3,187	44.4	21,231	30	—	—	—	—
1899—1900	141	183	10	334	4.5	119	886	1,005	13.4	37,498	34	.36	50	1,803	1,797	2	3,602	48.1	24,477	33	—	—	—	—
1900—1901	139	224	10	373	4.5	179	896	1,075	13.1	41,219	33	.39	50	2,237	1,847	2	4,086	49.6	27,483	33	—	—	—	—
1901—1902	139	242	10	391	4.3	205	887	1,092	12.1	41,456	32	.39	46	2,508	2,315	2	4,825	53.3	32,843	36	—	—	—	—
1902—1903	165	254	12	431	4.1	289	1,007	1,296	12.2	50,417	32	.37	47	2,825	2,465	2	5,292	49.8	35,995	34	—	—	—	—
1903—1904	200	272	12	484	4.2	297	1,137	1,434	12.5	55,213	32	.36	48	3,126	2,665	2	5,793	50.5	38,295	33	—	—	—	—
1904—1905	175	280	12	467	3.9	297	1,201	1,498	12.4	60,420	34	.39	50	3,150	2,734	2	5,880	48.6	43,086	36	—	—	—	—
1905—1906	293	294	12	599	4.0	342	1,270	1,612	10.7	60,408	33	.42	43	5,240	3,149	9	8,398	56.0	55,893	37	—	—	—	—
1906—1907	672	662	14	1,348	4.4	724	2,660	3,384	10.9	129,745	32	.35	42	10,065	10,087	13	20,165	65.2	142,463	46	12	4,407.10	—	—
1907—1908	1,039	871	14	1,924	4.3	961	4,028	4,989	11.2	192,229	32	.33	43	14,120	18,094	28	32,242	72.5	230,894	52	22	9,975.85	3	1,515.29
1908—1909	1,068	941	20	2,029	4.5	1,067	4,201	5,268	11.6	201,830	32	.34	44	14,330	18,210	28	32,568	71.7	235,732	52	24	12,794.85	4	3,458.67
1909—1910	1,175	974	25	2,174	4.7	1,157	4,276	5,433	11.7	208,606	32	.34	45	14,528	19,109	28	33,665	72.8	246,682	53	27	16,128.06	5	6,711.01
1910—1911	1,220	986	25	2,231	4.6	1,261	4,403	5,664	11.6	221,170	32	.35	45	15,277	19,431	42	34,760	71.4	258,270	53	28	16,356.32	4	6,714.18
1911—1912	1,234	1,061	10	2,305	4.6	1,604	4,289	5,893	11.7	236,273	32	.36	47	16,568	21,342	42	37,952	75.2	292,498	58	28	19,571.30	5	9,939.94
1912—1913	1,230	1,139	12	2,381	4.6	1,863	4,285	6,148	11.8	250,622	31	.36	48	18,390	22,088	49	40,527	77.7	332,318	64	29	19,350.76	4	4,233.39

N.B.—The table includes the cars used in construction service; one bogie carriage is calculated as 2 cars and the average seating capacity calculated accordingly.

Under the columns of "Wagons, etc." tank-cars, gas holders, and tender-cars are included.

Year	Transportation							
	No. of engine houses	No. of engine houses per 100 mile of tracks	Locomotive mileage	Vehicle mileage reduced	Coal consumed for operation	Oil consumed for operation	Coal consumed per 100 loco/miles	Oil consumed per 100 loco miles
			m.	*m.*	*kin*	*koku*	*kin*	*sho*
1886—1887	11	5.3	—	—	—	—	—	—
1887—1888	11	4.5	—	—	—	—	—	—
1888—1889	18	4.0	—	—	—	—	—	—
1889—1890	19	3.5	—	—	—	—	—	—
1890—1891	18	3.3	—	—	—	—	—	—
1891—1892	18	3.3	—	—	—	—	—	—
1892—1893	20	3.6	3,958,059	—	78,541,429	1,334	2,237	3.4
1893—1894	20	3.6	4,126,128	—	97,356,776	1,340	2,360	3.2
1894—1895	20	3.4	4,926,585	—	125,578,065	1,928	2,549	3.9
1895—1896	19	3.2	5,415,055	—	151,759,419	2,292	2,803	4.2
1896—1897	21	3.3	5,660,456	—	164,091,750	2,624	2,899	4.6
1897—1898	21	3.2	6,285,771	79,889,329	194,729,780	3,181	3,098	5.1
1898—1899	23	3.2	7,493,192	93,498,341	245,824,943	3,835	3,281	5.1
1899—1900	26	3.5	8,349,263	105,572,242	269,776,613	3,868	3,231	4.6
1900—1901	26	3.2	9,227,240	119,165,971	281,196,666	3,887	3,047	4.2
1901—1902	29	3.2	9,267,367	121,837,008	293,216,145	2,844	3,164	3.1
1902—1903	33	3.1	9,741,760	137,277,889	313,752,516	3,908	3,221	4.0
1903—1904	36	3.1	11,255,667	155,846,889	363,678,931	4,398	3,231	3.9
1904—1905	37	3.1	10,680,391	153,236,264	350,293,440	4,560	3,280	4.3
1905—1906	44	2.9	12,499,167	181,370,232	456,919,680	5,867	3,656	4.7
1906—1907	79	2.5	21,929,332	315,239,654	847,669,200	9,807	3,865	4.5
1907—1908	107	2.4	43,901,036	647,183,493	1,686,627,600	17,861	3,842	4.1
1908—1909	119	2.6	50,569,162	810,099,190	1,934,705,161	18,029	3,826	3.6
1909—1910	120	2.6	50,234,318	828,447,355	1,971,297,711	15,334	3,924	3.1
1910—1911	117	2.4	52,949,150	894,413,229	2,030,919,436	12,312	3,836	2.3
1911—1912	119	2.4	57,972,193	964,921,502	2,284,521,270	13,995	3,941	2.4
1912—1913	116	2.2	64,753,040	1,083,665,560	2,647,477,065	15,136	4,089	2.3

N.B.—Coal consumed for operation includes petroleum dregs converted at 1 *sho*=5.4 *kin* of coal.

Year	Finance											
	Traffic receipts				Working expenses							
	Passengers	Goods	Miscellaneous	Total	General	Maintenance	Transportation	Maintenance of rolling stock	Traffic	Electric	Hotel	Shipping
	yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
1886—1887	980,199	269,915	51,004	1,301,118	75,515	168,333	247,374	—	131,766	—	—	—
1887—1888	1,320,320	320,901	57,652	1,698,873	67,224	212,509	246,341	—	151,050	—	—	—
1888—1889	1,785,524	467,297	60,990	2,313,811	78,226	318,250	358,693	—	212,416	—	—	—
1889—1890	3,033,706	677,185	60 739	3,771,630	212,879	627,833	520,247	—	302,458	—	—	—
1890—1891	3,305,442	767,967	140,395	4,213,804	138,930	686,657	822,410	—	353,220	—	—	—
1891—1892	3,179,873	824,056	106,212	4,110,141	169,239	1,013,591	866,687	—	377,383	—	—	—
1892—1893	3,487,133	1,019,262	74,238	4,580,633	146,229	839,796	800,520	—	379,654	—	—	—
1893—1894	3,977,086	1,306,397	100,972	5,384,455	129,915	640,494	775,386	—	396,580	—	—	—
1894—1895	4,295,838	1,430,530	93,045	5,819,413	103,139	519,838	1,058,313	—	500,406	—	—	—
1895—1896	5,952,583	1,921,354	130,296	8,004,233	96,216	841,122	1,355,392	—	658,831	—	—	—
1896—1897	6,448,602	1,681,294	143,756	8,273,652	108,919	1,197,421	1,634.209	—	875,114	—	—	—
1897—1898	7,472,343	2,144,540	110,607	9.727,490	142,045	1,279,779	2,207,190	—	1,157,035	—	—	—
1898—1899	8,182,411	2,762,265	141,843	11,086,519	169,697	1,554,999	3,075,958	—	1,437,609	—	—	—
1899—1900	9,765,904	3,600,679	196,821	13,563,404	178,213	1,770,953	2,912,762	—	1,529,047	—	—	—
1900—1901	11,046,359	4,359,096	244,446	15,649,901	187,697	1,811,208	3,080,908	—	1,726,404	—	—	—
1901—1902	11,115,385	4,902,723	316,202	16,334,310	198,332	2,111,366	3,584,969	—	2,043,220	—	—	—
1902—1903	11,959,117	5,489,581	279,704	17,728,402	216,210	2,231,507	3,665,119	—	2,267,864	—	—	—
1903—1904	13,043,551	5,973,275	344,916	19,361,742	207,450	2,407,974	3,893,450	—	2,526,554	—	—	—
1904—1905	12,587,168	7,331,300	449.299	20,367,767	213,795	2,070,199	3,706,569	—	2,448,625	—	—	—
1905—1906	14,535,884	8,866,874	653,382	24,056,140	352,484	2,796,723	5,005,791	—	2,974,157	—	—	—
1906—1907	20,720,870	13,944,931	812,516	35,478,317	490,024	4,055,205	8,727,616	—	4,974,756	—	—	—
1907—1908	38,394,184	30,500,896	880,081	69,775,161	1,016,292	8,194.209	15,893,394	—	10,648,048	—	—	—
1908—1909	42,922,705	35,835,101	1,063,777	79,821.583	1,204,659	7,781,230	20,334,138	—	11,366,905	982,167	—	1.199,538
1909—1910	43,511,990	37,522,659	1,201,787	82,236,436	1,089,559	8,472,835	19,982,448	—	10,200,066	1,08 ,080	—	1,236,001
1910—1911	46,483,237	41,508,438	1,344,917	89,336,592	1,416,486	9,565,693	18,157,589	—	11,293,359	1,403,922	31,201	1,381,122
1911—1912	52,339,348	46,329,795	1,510,675	100,179,818	1,180,459	10,156,710	18,530,243	—	12,234,622	1,739,418	33,021	1,518,702
1912—1913	55,764,695	50,145,597	2,115,346	108,025,638	1,456,400	11,352,504	13,404,770	7,644,435	14,102,347	—	33,720	1,617,894

5. TRANSPORTATION.—*Continued.*

Year	Finance										
	Working expenses			Net profit	Traffic receipts per day per mile	Expenses per day per mile	Net profit per day per mile	Percentage of operating expenses to receipts	Traffic receipti per train mile	Working expenses per train mile	Net profit per train mile
	Red of private railways	Subsidies to Relief Association	Total								
	yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	%	*yen*	*yen*	*yen*
1886—1887 ...	—	—	622,988	,678,130	18.28	8.75	9.53	.48	—	—	—
1887—1888 ...	—	—	677,124	1,021,749	19.69	7.85	11.84	.40	—	—	—
1888—1889 ...	—	—	967,585	1,346,226	18.91	7.91	11.00	.42	—	—	—
1889—1890 ...	—	—	1,663,417	2,108,813	19.35	8.53	10.82	.44	—	—	—
1890—1891 ...	—	—	2,001,273	2,212,531	20.97	9.96	11.01	.47	1.44	.69	.75
1891—1892 ...	—	—	2,426,900	1,683,241	20.40	12.04	8.35	.59	1.24	.73	.51
1892—1893 ...	—	—	2,106,199	2,414,434	22.79	10.78	12.01	.47	1.30	.61	.69
1893—1894 ...	—	—	1,942,375	3,442,080	26.46	9.54	16.91	.36	1.44	.52	.92
1894—1895 ...	—	—	2,181,696	3,637,717	28.20	10.57	17.63	.37	1.39	.52	.87
1895—1896 ...	—	—	2,951,561	5,052,672	37.29	13.75	23.54	.37	1.85	.68	1.17
1896—1897 ...	—	—	3,815,663	4,457,989	36.52	16.84	19.68	.46	1.72	.79	.93
1897—1898 ...	—	—	4,786,049	4,941,441	41.15	20.24	20.91	.49	1.82	.89	.93
1898—1899 ...	—	—	6,238,263	4,848,256	43.91	24.71	19.28	.56	1.71	.96	.75
1899—1900 ...	—	—	6,390,975	7,172,429	49.69	23.41	26.27	.47	1.90	.90	1.00
1900—1901 ...	—	—	6,806,217	8,843,684	53.50	23.27	30.23	.43	1.99	.86	1.13
1901—1902 ...	—	—	7,937,887	8,396,423	51.21	24.89	26.32	.49	2.05	1.00	1.05
1902—1903 ...	—	—	6,380,700	9,347,702	49.72	23.50	26.22	.47	2.10	.99	1.11
1903—1904 ...	—	—	9,035,428	10,326,314	47.90	22.35	25.55	.47	1.99	.93	1.06
1904—1905 ...	—	—	8,439,188	11,928,579	47.50	19.68	27.82	.41	2.24	.93	1.31
1905—1906 ...	—	—	11,129,155	12,926,985	44.82	20.74	24.08	.46	2.25	1.04	1.21
1906—1907 ...	—	—	18,247,601	17,230,716	45.21	23.25	21.96	.51	1.87	.96	.91
1907—1908 ...	—	—	35,751,943	31,023,218	47.87	24.53	23.34	.51	1.86	.95	.91
1908—1909 ...	—	—	42,859,637	36,961,946	48.46	26.02	22.44	.54	1.84	.99	.85
1909—1910 ...	—	—	42,060,989	40,175,447	49.19	25.16	24.03	.51	1.94	.99	.95
1910—1911 ...	—	—	43,249,372	46,087,220	51.34	24.86	26.48	.48	2.00	.97	1.03
1911—1912 ...	129,604	245,477	45,768,256	54,411,562	55.29	25.26	30.03	.46	2.06	.94	1.12
1912—1913 ...	130,895	270,682	50,013,647	58,011,991	57.69	26.71	30.98	.46	2.00	.93	1.07

6. FINANCE.

Year	Finance							
	Capital	Construction expenses settled	Improvement expenses settled	Additional expenses settled	Cost of construction of private rlys (represented by their purchase price)	Percentage of traffic receipts to capital	Percentage of working expences to capital	Percentage of profit to capital
	yen	*yen*	*yen*	*yen*	*yen*	%	%	%
1885—1886 ...	17,885,844	15,058,320	—	—	—	—	—	—
1886—1887 ...	21,134,853	2,394,508	—	—	—	.062	.029	.033
1887—1888 ...	26,284,853	5,167,670	—	—	—	.065	.026	.039
1888—1889 ...	33,391,027	6,184,720	—	—	—	.069	.029	.040
1889—1890 ...	34,447,633	2,986,006	—	—	—	.109	.028	.061
1890—1891 ...	34,973,185	704,620	—	444,330	—	.120	.057	.063
1891—1892 ...	36,610,529	1,186,940	—	312,858	—	.112	.066	.046
1892—1893 ...	37,570,274	861,628	—	347,343	—	.122	.058	.064
1893—1894 ...	39,422,778	66,742	—	638,857	—	.137	.049	.088
1894—1893 ...	42,661,167	3,640,835	—	647,406	—	.136	.051	.085
1895—1896 ...	45,815,967	2,362,396	—	1,027,851	—	.175	.064	.111
1896—1897 ...	51,764,265	4,085,771	1,166,300	470,039	—	.160	.074	.086
1897—1898 ...	67,618,139	9,525,608	4,412,8.7	443,834	—	.144	.071	.073
1898—1899 ...	79,810,485	7,799,570	3,851,001	509,268	—	.139	.078	.061
1899—1900 ...	91,548,670	9 536,280	2.369,562	413,215	—	.145	.070	.078
1900—1901 ...	111,000,495	14,348,276	4,357,661	745,089	—	.141	.061	.080
1901—1902 ...	127,649,232	12,323,110	2,962,840	701,715	—	.128	.062	.066
1902—1903 ...	144,395,061	14,452,110	3,708,426	689,237	—	.123	.058	.065
1903—1904 ...	161,135,866	13,561,881	2,861,859	536,633	—	.120	.056	.064
1904—1905 ...	169,575,604	7,008,555	1,115,742	443,889	—	.120	.050	.070
1905—1906 ...	177,147,563	4,374,905	543,211	386,858	—	.136	.063	.073
1906—1907 ...	189,966,470	7,171,817	3,894,267	839,237	—	—	—	—
1907—1908 ...	380,347,457	15,769,858	5,866,282	1,784,308	144,101,884	—	—	—
1908—1909 ...	753,886,988	20,809,487	9,205,472	1,848,799	326,965,043	.106	.057	.049
1919—1910 ...	784,963,769	24,900,098	8,838,992	2,542,235	—	.105	.054	.051
1910—1911 ...	823,196,507	19,693,998	16,798,373	1,658,526	—	.109	.053	.056
1911—1912 ...	872 229,998	19,963,484	29,236,813	1,843,102	—	.115	.052	.063
1912—1913 ...	932,671,281	28,233,137	31,017,765	2,060,743	—	.116	.054	.062

N.B.—The construction expenses settled include the expenses incurred by the laying of the Hokkaido lines and by the construction of a bridge over the new water course of the river Yodo, while in the returns of 1907 and 1908 the purchase price of private railways are included.

The construction and improvement expenditures settled include prepayments.

Year	Stores					
	Railway stores purchased			Amount of stores		
	Home purchase	Foreign purchase	Total	Stores in stock	Articles in process of manufacture	Total
	yen	yen	yen	yen	yen	yen
1894—1895	—	—	—	1,861,184	53,573	1,914,757
1895—1896	—	—	—	1,378,458	18,607	1,397,065
1896—1897	—	—	—	1,547,987	32,044	1,580,031
1897—1898	—	—	—	3,407,528	159,373	3,566,901
1898—1899	3,253,682	4,284,033	7,537,715	2,862,813	84,577	2,947,390
1899—1900	4,831,681	930,827	5,762,508	2,046,533	58,841	2,105,374
1900—1901	7,746,096	3,797,525	11,543,621	2,689,419	64,897	2,754,316
1901—1902	6,099,003	1,767,157	7,866,190	3,295,691	111,747	3,407,438
1902—1903	5,707,637	3,019,069	8,726,706	2,307,073	34,055	2,341,128
1903—1904	7,872,016	1,833,575	9,705,591	2,351,905	24,615	2,376,520
1904—1905	2,601,345	2,262,503	4,863,848	2,840,195	108,156	2,948,351
1905—1906	6,848,012	645,413	7,493,425	3,124,790	250,872	3,375,662
1906—1907	10,524,354	2,124,057	12,648,411	9,600,194	149,312	9,749,506
1907—1908	27,448,795	7,931,489	35,380,284	11,801,087	3,130,474	14,931,561
1908—1909	19,787,600	2,072,597	21,860,197	15,011,672	2,317,739	17,329,411
1909—1910	21,943,949	2,120,015	24,063,964	8,506,649	494,055	9,000,704
1910—1911	28,040,178	6,530,187	34,570,365	6,807,996	573,776	7,381,772
1911—1912	33,745,441	7,327,547	41,072,688	7,457,567	869,122	8,326,689
1612—1913	36,287,754	6,075,619	42,363,373	8,688,526	590,755	9,279,281

Year	Works.						
	No. of Works	No. of operatives	No. of day's work	No. of day's work reduced	Wages	Average wages per day per capita	Average No. of working days per year per capita
					yen	*yen*	
1886—1887	2	—	—	—	—	—	—
1887—1888	2	—	—	—	—	—	—
1888—1889	2	—	—	—	—	—	—
1889—1890	2	—	—	—	—	—	—
1890—1891	3	—	—	—	—	—	—
1891—1892	3	—	—	—	—	—	—
1892—1893	3	—	—	—	—	—	—
1893—1894	3	1,302	—	365,466	148,738	.407	280.7
1894—1895	3	1,374	—	423,092	172,928	.409	307.9
1895—1896	3	1,654	—	529,473	202,181	.382	320.1
1896—1897	3	1,894	—	626,391	254,854	.407	330.7
1897—1898	3	2,503	—	834,113	382,171	.458	333.2
1898—1899	3	2,600	—	810,243	407,953	.503	311.6
1899—1900	3	2,706	—	829,341	431,799	.521	306.5
1900—1901	3	2,842	—	906,820	488,324	.539	319.1
1901—1902	3	3,441	—	1,058,678	577,566	.546	307.7
1902—1903	3	3,656	—	1,124,605	630,533	.561	307.6
1903—1904	3	3,529	—	1,105.553	638,163	.577	313.3
1904—1905	3	3,713	—	1,174,948	698,415	.594	316.4
1905—1906	4	4,530	—	1,450,423	811,537	.560	320.2
1906—1907	13	8,023	—	1,934,850	1,167,498	.603	241.2
1907—1908	22	12,930	—	3,747,238	2,420,089	.646	289.8
1908—1909	23	14,039	—	4,159,204	2,726,842	.656	296.3
1909—1910	23	13,322	3,732,804	3,900,864	2,642,855	.678	292.8
1910—1911	23	14,143	4,177,235	4,444,228	2,961,035	.666	314.2
1911—1912	24	15,658	4,670,762	5,149,314	3,383,514	.657	328.9
1912—1913	24	16,638	5,100,365	5,613,286	3,740,769	.733	337.0

N.B.—'No. of operatives represents the average number of them as returned at the end of each month.

'No. of day's work' is computed by multiplying No. of operatives at work by working days.

'No. of day's work reduced' represents the results obtained by counting one day's work at 10 hours, an operative working for 15 hours being counted as $1\frac{1}{2}$ days.

Year	Electricity								
	No. of stations accepting telegraphic messages	No. of stations accepting public messages	No. of apparatus			No. of telegraphic messages			
			Telegraph	Telephone	Block instrument	Railway	Public	Total	Share in charges on public telegrams
									yen
1891—1892	—	—	—	—	—	650,120	99 774	749,894	6,282
1892—1893	104	34	134	17	36	739,593	122,423	862,016	7,080
1893—1894	106	38	137	16	36	827,027	130,403	957,430	7,158
1894—1895	119	39	152	16	74	1,214,972	138,069	1,353,041	7,910
1895—1896	112	46	156	16	82	1,648,985	174,385	1,823,370	9,018
1896—1897	123	53	171	18	104	3,483,160	368,519	3,851,679	12,363
1897—1898	139	54	197	19	110	2,375,663	377,312	2,752,975	15,816
1898—1899	153	54	224	32	160	2,361,202	412,594	2,773,796	16,985
1899—1900	167	66	244	50	172	2,445,134	394,566	2,839,700	18,696
1900—1901	184	81	271	61	178	2,960,616	418,989	3,379,605	22,008
1901—1902	199	98	297	65	217	5,301,253	500,465	5,801,718	22,369
1902—1903	229	128	329	123	265	5,488,462	547,175	6,035,637	23,655
1903—1904	252	155	367	156	294	6,042,133	709,137	6,751,270	30,020
1904—1905	258	167	393	158	309	5,885,524	743,216	6,628,740	36,445
1905—1906	311	184	466	194	318	7,777,035	990,598	8,767,633	42,596
1906—1907	732	491	1,034	835	872	12,822,494	2,018,308	14,840,802	82,456
1907—1908	1,146	684	1,564	2,040	1,238	23,669,872	4,120,162	27,790,034	154,033
1908—1909	1,188	729	1,489	2,890	1,335	26,473 445	4,140,856	30,614,301	204,706
1909—1910	1,226	784	1,519	3,831	1,652	32,590,138	5,661,677	38,251,815	204,384
1910—1911	1,298	820	1,612	5,349	2,073	34,060,951	5,984,256	40,045,207	216,816
1911—1912	1,353	862	2,065	6,889	2,422	38,116,990	6,310,814	44,427,804	228,335
1912—1913	1,404	891	2,077	8,178	2,798	40,743,276	6,504,994	47,248,270	235,471

N.B.—Telegraph apparatus comprises recorders, sounders, duplex sounders, block instruments and automatic relays.
The block instruments comprise double line instruments, Tyres, Webb Thompsons, and single line instruments.
In the returns of telegraphic messages in and after 1903—1904, despatched and received are counted as one and transmitted as 2.

10. OFFICIALS AND EMPLOYEES.

Year	Officials and Employees											
	Higher grade						Lower grade					
	Chokunin rank			*Sonin* rank			Clerks			Assistant engineers		
	No.	Monthly salary	Average salary per capita	No.	Monthly salary	Average salary per capita	No.	Monthly salasy	Average salary per capita	No.	Monthly salary	Average salary per capita
		yen	*yen*		*yen*	*yen*		*yen*	*yen*		*yen*	*yen*
1891—1892	—	—	—	—	—	—	—	—	—	—	—	—
1892 - 1893	—	—	—	—	—	—	—	—	—	—	—	—
1893—1894	—	—	—	—	—	—	—	—	—	—	—	—
1894—1895	2	542	271.00	39	4,040	103.59	717	14,697	20.50	151	4,301	28.48
1895—1896	2	542	271.00	40	4,575	114.38	873	17,414	19.95	147	4,297	23.23
1896—1897	3	792	264.00	62	6,525	105·24	1,001	21,610	21.59	211	5,751	27.26
1897—1898	5	1,417	283.40	63	6,576	104.38	1,154	25,753	22.32	212	6,337	29.89
1898—1899	4	1,167	291.75	63	7,309	116.02	1,175	27,397	23.32	249	8,435	33.88
1899—1900	4	1,167	291.75	71	8,141	114.66	1,286	32,268	25.09	290	10,430	35.97
1900—1901	4	1,167	291.75	103	11,034	107.13	1,461	37,311	25.54	356	12,700	35.67
1901—1902	4	1,167	291,75	104	12,003	116.28	1,505	39,907	26.52	368	13,465	36.59
1902—1903	4	1,167	291.75	113	12,809	113.35	1,522	43,929	28.86	368	14,510	39.43
1903—1904	2	625	312.50	109	13,025	119.50	1,513	46,461	30.71	311	13,135	42.23
1904—1905	3	875	291.67	85	10,832	127.44	1,328	43,950	33.09	265	12,115	45.72
1905—1906	3	875	291.67	120	14,514	120.95	1,550	52,059	33.59	354	15,397	43.49
1906—1907	4	1,166	281.50	135	15,919	117.92	1,682	59,183	35.19	405	17,995	44.43
1907—1908	14	3,834	273.86	324	33,909	104.66	3,995	127,538	31.92	1,291	54,578	42.27
1908—1909	17	4,584	269.65	426	46,133	108.29	4,825	158,835	32.92	2,090	87,585	41.91
1909—1910	18	4,833	268.50	441	48,658	110.34	4,492	154,810	34.46	1,951	84,754	43.44
1910—1911	18	5,942	330.11	453	60,735	134.07	4,344	185,132	42.62	1,972	104,226	52.85
1911—1912	21	6,658	332.90	502	68,654	136.76	4,562	197,652	43.33	2,156	112,874	52.35
1912—1913	21	7,358	350.38	517	73,904	142.95	4,749	209,960	44.21	2,290	121,771	53.18

OFFICIALS AND EMPLOYEES.—*Continued.*

Year	Officials and Employees								
	Employees			Servants of regular employ			Total		
	No.	Monthly salary	Average salary per capita	No.	Monthly salary	Average salary per capita	No.	Monthly salary	Average salary per capita
		yen	*yen*		*yen*	*yen*		*yen*	*yen*
1891—1892	—	—	—	—	—	—	—	—	—
1892—1893	—	—	—	—	—	—	—	—	—
1893—1894	—	—	—	—	—	—	—	—	—
1894—1895	873	8,781	10.06	8,111	70 465	8.69	9,893	102,826	10.39
1895—1896	1,030	9,970	9.68	8,872	70,245	8.59	10,994	113,043	10.31
1896—1897	1,751	18,718	10.69	10,972	106,849	9.74	14,000	160,245	11.45
1897—1898	2,149	25,027	11.65	13,496	150,972	11.19	17,079	216,082	12.65
1898—1899	2,356	28,165	11.95	13,927	160,390	11.52	17,774	232,863	13.10
1899—1900	2,570	33,490	13.03	14,391	172,323	11.97	18,612	257,819	13.85
1900—1901	2,783	37,344	13.42	16,175	201,670	12.47	20,882	301,226	14.43
1901—1902	2,796	39,337	14.07	17,637	227,654	12.91	22,414	333,623	14.88
1902—1903	3,079	45,422	14.75	18,616	243,957	13.10	23,702	361,794	15.26
1903—1904	3,104	47,514	15.31	18,623	251,929	13.53	23,662	372,689	15.75
1904—1905	3,114	46,322	14.88	18,666	248,611	13.32	23,461	362,705	15.46
1905—1906	3,849	58,562	15.21	23,002	308,158	13.40	28,878	449,565	15.57
1906—1907	15,217	310,912	20.43	42,204	543,654	12.88	59,647	948,829	15.91
1907—1908	22,306	413,776	18.55	60,336	835,169	13.84	88,266	1,468,801	16.64
1608—1909	22,106	380,869	17.23	60,404	861,686	14.27	89,868	1,539,692	17.13
1909—1910	22,311	400,373	17.65	60,918	883,728	14.51	90,131	1,577,156	17.50
1910—1911	23,709	465,023	19.61	65,131	956,006	14.68	95,627	1,777,064	18.58
1911—1912	25,806	501,418	19.43	70,371	1,051,351	14.94	103,418	1,938,607	18.75
1912—1913	27,745	542,716	19.56	74,661	1,137,952	15.24	109,983	2,083,661	19.04

11. POPULATION.

Year	Population			
	Male	Female	Total	Rate of increase
				%
1886—1887	—	—	58,530,400	—
1887—1888	—	—	39,137,100	.016
1888—1889	—	—	39,626,600	.013
1889—1890	—	—	40,076,500	.011
1890—1891	—	—	40,460,300	.010
1891—1892	—	—	40,718,800	.006
1892—1893	—	—	41,083,400	.009
1893—1894	—	—	41,378,600	.007
1894—1895	—	—	41,694,700	.008
1895—1896	—	—	42,225,300	.013
1896—1897	—	—	42,665,300	.010
1897—1898	—	—	43,180,400	.012
1898—1899	—	—	43,716,400	.012
1899—1900	—	—	44,269,900	.013
1900—1901	—	—	44,831,300	.013
1901—1902	—	—	45,404,700	.013
1902—1903	—	—	45,990,000	.013
1903—1904	23,535,600	23,052,400	46,588,000	.013
1904—1905	23,851,200	23,346,400	47,197,600	.013
1905—1906	24,173,700	23,645,600	47,819,300	.013
1906—1907	24,502,700	23,948,400	48,451,100	.013
1907—1908	24,839,900	24,252,100	49,092,000	.013
1908—1909	24,834,500	24,483,800	49,488,300	.006
1909—1910	25,107,400	24,790,100	49,797,500	.012
1910—1911	25,393,700	25,103,900	40,497,600	.012
1911—1912	25,693,700	25,425,500	51,119,200	.012
1912—1913	25,994,800	25,753,800	51,748,600	.012

N.B.—The above table does not include the returns of Formosa, Karafuto (Saghalien) and Chosen.

12. AREA OF THE PREFECTURES.

Jurisdiction	Area	Jurisdiction	Area	Jurisdiction	Area
	square *ri*		square *ri*		square *ri*
Tokyo	138.67	Yamaguchi	288.83	Hiroshima	547.71
Kyoto	295.56	Shiga	261.33	Yamaguchi	394.64
Osaka	115.48	Gifu	706.01	Wakayama	292.46
Kanagawa	155.39	Nagano	878.75	Tokushima	267.96
Hyogo	546.38	Miyagi	483.85	Kagawa	119.65
Nagasaki	253.78	Fukushima	895.25	Ehime	369.50
Niigata	827.96	Iwate	1,039.43	Kochi	459.56
Saitama	248.57	Aomori	636.18	Fukuoka	319.14
Gumma	394.65	Yamagata	597.35	Oita	403.74
Chiba	329.29	Akita	734.39	Saga	158.29
Ibaraki	395.51	Fukui	257.02	Kumamoto	481.89
Tochigi	426.25	Ishikawa	272.47	Miyazaki	501.73
Nara	258.35	Toyama	259.16	Kagoshima	591.51
Mie	351.28	Tottori	241.24	Okinawa	143.98
Aichi	326.76	Shimane	437.44	Hokkaido	5,987.03
Shizuoka	495.28	Okayama	440.77	Total	25,027.42

13. MONTHLY RETURNS OF PASSENGER AND GOODS TRAFFIC DURING FIVE YEARS.

Description	Month	Monthly returns of Pass. & Goods Traffic during five years					
		1908—1909	1909—1910	1910—1911	1911—1912	1912—1913	Average for 5 years.
No. of passengers carried	April	12,453,794	13,620,159	15,151,193	16,724,524	17,729,923	15,135,919
	May	11,538,631	11,883,454	12,333,574	13,498,322	14,297,905	12,710,377
	June	8,371,423	8,514 471	9,350,503	9,832.102	11,038,792	9,421,458
	July	9,588,803	10,034,049	10,431,198	11,120,973	11,596,581	10,554,321
	August	11,027,525	13,321,178	11,278,210	12,611,200	12,915,057	11,830,634
	September	11,104,394	16,641,841	12,185,824	13.278,224	14,737,382	12,589,533
	October	11,911,869	11,103,709	13,186,768	14.489,165	16,520,258	13,642,354
	November...	10,211,058	12,221,229	11,242,509	12,247,293	12,564,470	11,297,312
	December	8,721,728	9,214,853	10,064,176	11,027,737	11,593,597	10,124,418
	January	9,676,729	9,855,381	10,784,650	11,807,203	12,464,782	10,917,749
	February	8,520,249	9,029,371	10,180 267	10,849,120	11,455,858	10,006,953
	March	10,101,340	10,867,265	12,440,834	13,592,016	13,797,132	12,159,717
	Total	123,227,543	128,306,960	138,629,706	151,077,779	160,711,737	140,390,745
Tonnage of goods hauled		*ton*	*ton*	*ton*	*ton*	*ton*	*ton*
	April	1,951,417	2,004,076	2,119,774	2,391,139	2,724,768	2,238,235
	May	2,097,745	2,172,731	2,201,553	2,497,148	2,807,029	2,355,241
	June	1,938,635	1,903 108	1,949,066	2,253,423	2,618,202	2,132,487
	July	2,027,880	1,898,281	1,977,350	2,330,906	2,545,926	2,156,069
	August	1,772,427	1.848,598	1,673,926	2,123,723	2,451,742	1,974,083
	September...	2,006,335	1,821,687	1,975.757	2,333,524	2,452,889	2,118,038
	October	2,152,516	2,075,078	2,230.604	2,511,628	2,952,308	2,384,427
	November...	1,996,181	1,947,118	2,198,334	2,481,391	2,839,233	2,292,451
	December	2,113,265	2,176,842	2,391,882	2,731,157	2,906,848	2,463,999
	January	1,733,177	1.877,887	2,172,002	2,459,779	2,966,634	2,181,896
	February	1,698,617	1,780,159	2,124,443	2,507,608	2,531,690	2,128,503
	March	2,036,364	2,150,055	2,467,177	2,715,628	3,040,076	2,481,860
	Total	23.524 559	23,655,620	25,481,868	29,337,054	32,537,345	26,907,289
Traffic receipts (including shipping receipts)		*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
	April	7,495,846	7,856,199	8,641,772	10,184,887	10,421,745	8,920,690
	May	7,099,833	7.359,391	7,890,474	8,646,969	9,413,286	8,077,991
	June	5,957,062	5,994,223	6,385,861	6,947,739	8,029,611	6,662,899
	July	6,474,564	6,407,818	6,702,973	7,402,381	8,052,756	7,008,098
	August	6,616,457	6 864,392	6,138,164	7,779,084	8,483.717	7,116.363
	September	6,697,363	6,737,586	7,150,594	7,985,533	8,692,583	7,142,732
	October	7,345,253	7,251,267	7,940,532	8,602,108	9,801,228	8,188,078
	November...	6,743,195	6,555.342	7.485,353	8,178,946	8,888,027	7,570,173
	December	6,516,737	6,748,784	7,604,373	8,310,626	8,695,888	7,575.282
	January	5,794,810	6,015,435	6,909,153	7,590,504	8,061,378	6,874,256
	February	5,421,298	5,748,711	6,770,283	7,566,676	7,697,788	6,640,951
	March	6,851,517	7 416,743	8,674,724	9,253,797	9,586,517	8,376,660
	Total...	78,993,935	80,955,891	88,294,256	98,449,250	105,824,524	90,503,571

14. CLASSIFICATION AND TONNAGE OF PRINCIPAL GOODS AND LIVE STOCK CARRIED.

Description \ Year	Classification and Tonnage of Goods and Live Stock carried.									
	1908—1909		1909—1910		1910—1911		1911—1912		1912—1913	
								ton		*ton*
Rice		1,101,689		1,094,558		1,101,965		1,222,245		1,326,755
Wheat	*ton*	500,541	*ton*	524,407	*ton*	603,162		372,937		81,370
								130,909		133,756
Salt		209,917		219,986		240,192		288,597		313,802
Liquor, Japanese and foreign cigarettes, etc.		166,784		142,282		153,652		177,816		172,097
Tobacco,		216,675		102,145		111,091		107,997		110,729
Cotton		80,034		89,876		106,948		57,486		63,723
								44,374		42,676
Paper		96,439		133,336		154,164		156,329		189,359
Porcelain and crockery		86,224		79,383		107,563		116,513		138,791
Matches		83,335		82,241		90,374		99,062		105,268
Iron and steel		10,140		18,016		21,053		19,610		20,316
Copper		310,165		210 833		279,863		255,405		322,608
				46,791		52,609		63,533		66,567
Charcoal and fuel		641,089		693,436		669,190		479,735		5 1,434
Timber		2,131,680		1,975,012		2,100,764		2,428,006		2,655,264
Stone		470,534		503,367		513,233		623,454		629,597
Brick		282,700		257,676		276,726		304,381		315,743
Petroleum		240,935		254,459		303,089		205,507		257,869
Coal		128,017		10,207,299		10,908,012		12,144,646		13,256,111
Minerals		136,354		180,879		210,400		268,505		430,538
Lime		7,671		—		—		—		193,375
Fertilizers of various kinds		817,868		845,327		913,397		296,664		373,915
								334,015		319,187
								84,406		117,910
								282,916		279,333
Flour		57,826		57,839		63,411		104,488		114,408
Tea		36,398		21,406		21,314		46,125		45,552
Raw fish		170,373		185,146		208,542		240,108		293,934
Salted or dried fish		181,604		81,037		95,462		265,743		257,442
Cocoon		36,788		58,664		63,659		82,912		97,430
Cotton yarn		108,753		84,120		102,306		148,343		171,763
Raw silk		28,441		34,360		36,432		24,964		35,063
Silk cloth		11,175		12,771		11,200		9,922		12,993
Cotton cloth		135,044		145,958		165,264		157,766		181,043
Total		18,491,698		18,343,910		19,682,937		21,705,329		23,928,427
Cattle		—		—		—		86,926		99,251
Horses		—		—		—		50,734		55,811
Total		—		—		—		137,660		155,062

15.—PASSENGER & GOODS RETURNS IN RELATION

Jurisdiction	Year	Mileage	Passenger Traffic		Goods Traffic		Traffic Receipts	
			No. of pass. carried	No. of journeys per capita of population	Tonnage of goods forwarded	Tonnage of goods forwarded per capita of population	Amount	Rate per 1000
		mile			*ton*	*ton*	*yen*	*yen*
Tokyo	1908—1909... ...	79.9	17,653,913	6.58	1,301,280	.49	10,002,790	126
	1909—1910... ...	80.4	19,099,659	6.38	1,270,212	.46	9,308,124	115
	1910—1911... ...	89.1	23,836,032	8.29	1,367,406	.48	10,031,406	114
	1911—1912... ...	89.6	27,652,939	9.29	1,641,086	.55	11,298,105	115
	1912—1913... ...	89.8	30,541,567	9.90	1,889,136	.61	12,175,603	115
Kyoto	1908—1909... ...	109.8	5,507,013	5.01	277,618	.25	2,688,911	34
	1909—1910... ...	109.8	5,881,067	5.26	292,008	.26	2,888,133	36
	1910—1911... ...	140.5	5,909,676	5.20	303,214	.27	3,217,547	37
	1911—1912... ...	148.7	6,567,431	5.69	463,546	.40	3,873,521	39
	1912—1913... ...	148.7	7,055,356	6.01	421,380	.35	3,630,007	34
Osaka	1908—1909... ...	68.7	10,277,994	5.28	1,036,805	.53	5,326,565	67
	1909—1910... ...	68.7	10,960,919	5.46	1,049,038	.52	5,727,478	71
	1910—1911... ...	69.0	11,142,517	5.38	1,141,062	.55	6,008,052	68
	1911—1912... ...	69.0	11,168,158	5.28	1,285,260	.60	6,586,428	67
	1912—1913... ...	69.0	10,779,338	4.90	1,413,366	.64	7,082,095	67
Kanagawa	1908—1909... ...	70.1	6,812,603	6.24	469,866	.43	2,794,541	35
	1909—1910... ...	70.1	7,132,241	6.66	509,737	.46	2,869,492	35
	1910—1911... ...	88.7	7,952,317	6.97	545,802	.48	3,047,392	35
	1911—1912... ...	90.0	8,552,010	7.33	689,301	.59	3,405,473	35
	1912—1913... ...	90.0	8,703,850	7.30	981,083	.82	3,685,324	35
Hyogo	1908—1909... ...	201.1	8,250,023	4.36	906,399	.48	4,196,780	53
	1909—1910... ...	217.8	9,086,855	4.74	960,751	.50	4,360,833	54
	1910—1911... ...	213.2	7,968,428	4.10	1,076,602	.55	4,592,093	52
	1911—1912... ...	253.3	8,493,165	4.30	1,160,452	.59	5,049,650	51
	1912—1913... ...	253.3	9,840,248	4.92	1,304,389	.65	5,630,557	53
Nagasaki	1908—1909... ...	61.9	1,264,998	1.21	118,329	.11	870,129	11
	1909—1910... ...	61.9	1,205,764	1.13	104,828	.10	823,250	10
	1910—1911... ...	61.9	1,242,509	1.15	88,813	.08	825,929	9
	1911—1912... ...	61.9	1,292,285	1.17	94,927	.09	882,608	9
	1912—1913... ...	61.9	1,372,537	1.23	114,070	.10	1,076,165	10
Niigata	1908—1909... ...	113.8	2,172,555	1.23	392,449	.22	1,814,871	23
	1909—1910... ...	113.8	2,291,469	1.29	376,383	.21	1,877,997	23
	1910—1911... ...	124.5	2,396,798	1.35	415,081	.23	2,077,787	24
	1911—1912... ...	133.7	2,766,666	1.55	450,656	.25	2,226,148	23
	1912—1913... ...	180.9	3,212,603	1.79	492,206	.27	2,424,794	23
Saitama	1908—1909... ...	64.4	1,718,606	1.40	211,197	.17	814,715	10
	1909—1910... ...	64.4	1,746,597	1.41	223,159	.18	832,767	10
	1910—1911... ...	64.4	1,793,165	1.44	188,614	.15	807,410	9
	1911—1912... ...	64.4	2,136,581	1.71	249,812	.20	968,089	10
	1912—1913... ...	64.4	2,159,809	1.71	258,546	.21	1,058,944	10
Gumma	1908—1909... ...	59.3	1,540,849	1.70	95,620	.11	686,556	9
	1909—1910... ...	59.3	1,548,803	1.69	89,775	.10	674,379	8
	1910—1911... ...	59.3	1,967,048	2.12	94,733	.10	752,085	9
	1911—1912... ...	59.3	1,553,723	1.65	87,934	.09	758,814	8
	1912—1913... ...	59.3	1,738,637	1.83	124,856	.13	802,064	8
Chiba	1908—1909... ...	118.9	2,808,251	2.21	229,394	.17	1,023,713	13
	1909—1910... ...	118.9	2,832,240	2.15	225,526	.17	1,000,684	12
	1910—1911... ...	118.9	2,888,226	2.18	224,075	.17	1,008,330	11
	1911—1912... ...	133.2	3,409,547	2.56	319,748	.24	1,222,265	12
	1912—1913... ...	143.3	3,794,135	2.83	290,879	.22	1,313,175	13
Ibaraki	1908—1909... ...	128.1	1,965,725	1.62	571,252	.47	1,595,740	20
	1909—1910... ...	128.1	1,930,503	1.58	614,390	.50	1,765,642	22
	1910—1911... ...	128.1	1,976,876	1.60	590,241	.48	1,735,844	20
	1911—1912... ...	128.1	2,190,606	1.75	724,977	.58	2,001,916	20
	1912—1913... ...	131.0	2,519,858	2.00	838,160	.66	2,270,384	22
Tochigi	1908—1909... ...	126.1	2,305,998	2.49	443,867	.48	1,477,567	19
	1909—1910... ...	126.1	2,384,284	2.54	440,753	.47	1,665,904	21
	1910—1911... ...	126.1	2,336,724	2.46	473,592	.59	1,707,289	19
	1911—1912... ...	126.1	2,724,881	2.83	565,950	.59	1,985,865	20
	1912—1917... ...	133.5	2,815,976	2.89	626,520	.64	2,040,583	19

TO POPULATION OF EACH PREFECTURE.

Jurisdiction	Year	Mileage	Passenger Traffic		Goods Traffic		Traffic Receipts	
			No. of pass. carried	No. of journeys per capita of population	Tonnage of goods forwarded	Tonnage of goods forwarded per capita of population	Amount	Rate per 1000
Nara	1908—1909... ...	56.0	2,866,023	5.22	158,415	.29	839,938	11
	1909—1910... ...	56.0	3,051,188	5.54	147,933	.27	828,340	10
	1910—1911... ...	56.0	3,246,589	5.88	150,627	.27	874,643	10
	1911—1912... ...	56.1	3,648,569	6.59	160,479	.29	963,175	10
	1912—1913	56.1	3,854,776	6.94	161,596	.29	998,085	9
Mie	1908—1909... ...	88.7	2,731,310	2.65	241,517	.23	1,376,457	17
	1909—1910... ...	88.7	2,915,415	2.81	264,792	.26	1,460,025	18
	1910—1911... ..	88.7	3,140,765	3.02	289,712	.28	1,631,918	18
	1911—1912... ...	97.5	3,651,187	3.49	321,778	.31	1,849,085	19
	1912—1913... ...	97.5	3,860,529	3.67	315,938	.30	1,914,999	18
Aichi	1908—1909... ...	106.9	4,270,580	2.39	412,712	.23	2,824,337	36
	1909—1910... ...	114.4	4,423,238	2.44	448,906	.25	2,965,109	37
	1910—1911... ...	114.4	5,232,361	2.84	533,018	.29	3,575,076	41
	1911—1912... ...	119.4	5,033,825	2.70	645,715	.35	3,880,957	40
	1912—1913... ...	120.4	4,960,893	2.62	689,139	.36	4,055,696	38
Shizuoka	1908—1909... ...	122.7	2,891,191	2.19	506,275	.34	2,146,964	27
	1909—1910... ...	122.7	2,941,776	2.20	527,561	.39	2,203,449	27
	1910—1911... ...	122.7	3,234,999	2.39	578,347	.43	2,421,344	27
	1911—1912... ...	122.7	3,667,483	2.68	665,562	.49	2,656,349	27
	1912—1913... ...	122.7	3,813,760	2.75	799,473	.58	3,057,120	29
Yamanashi	1908—1909... ...	67.6	992,032	1.80	98,461	.18	471,821	6
	1909—1910... ...	67.6	1,041,367	1.87	98,215	.18	483,649	6
	1910—1911... ...	67.6	1,076,723	1.92	118,428	.21	527,825	6
	1911—1912... ...	67.6	1,249,791	2.20	149,017	.26	633,675	6
	1912—1913... ...	67.6	1,264,076	2.20	161,155	.28	651,823	6
Shiga	1908—1909... ...	94.0	1,925,823	2.93	126,423	.19	883,322	11
	1909—1910... ...	94.0	2,075,483	3.18	140,338	.22	900,904	11
	1910—1911... ...	94.0	2,248,270	3.48	152,331	.24	986,805	11
	1911—1912... ...	94.0	2,466,747	3.85	162,807	.25	1,076,883	11
	1912—1913... ...	94.0	2,449,998	3.86	187,184	.30	1,122,952	11
Gifu	1908—1909... ...	62.8	1,268,267	1.27	199,685	.20	925,449	12
	1909—1910... ...	61.0	1,348,876	1.35	199,356	.20	948,037	12
	1910—1911... ...	61.0	1,490,081	1.49	221,105	.22	1,101,313	12
	1911—1912... ...	61.0	1,600,497	1.60	230,922	.23	1,184,249	12
	1912—1913... ...	91.0	1,646,752	1.65	235,448	.24	1,212,472	11
Nagano	1908—1909... ...	149.3	3,426,640	2.53	190,948	.14	1,508,491	19
	1909—1910... ...	172.1	3,257,707	2.39	213,861	.16	1,472,294	18
	1910—1911... ...	191.4	3,349,378	2.51	251,801	.18	1,649,779	19
	1911—1912... ...	196.6	4,011,106	2.90	297,629	.21	1,956,187	20
	1912—1913... ...	196.6	4,321,746	3.10	336,711	.24	2,117,074	20
Miyagi	1908—1909... ...	104.5	1,304,527	1.53	177,096	.21	1,094,946	14
	1909—1910... ...	104.5	1,365,137	1.61	195,857	.23	1,280,170	16
	1910—1911... ...	104.5	1,334,670	1.58	204,601	.24	1,352,397	15
	1911—1912... ...	104.7	1,531,391	1.82	258,805	.31	1,539,984	16
	1912—1913... ...	104.7	1,705,295	2.04	269,321	.32	1,513,985	14
Fukushima	1908—1909... ...	207.7	2,277,480	1.92	1,056,134	.89	2,891,057	36
	1909—1910... ...	207.7	2,097,837	1.76	1,122,110	.94	3,173,783	39
	1910—1911... ...	218.6	2,256,607	1.87	1,243,912	1.03	3,598,754	41
	1911—1912... ...	218.6	2,555,819	2.10	1,392,373	1.15	3,958,106	40
	1912—1913... ...	218.6	2,765,778	2.26	1,573,419	1.28	4,131,021	39
Iwate	1908—1909... ...	112.2	689,539	.91	162,231	.21	673,267	8
	1909—1910... ...	116.9	687,366	.90	145,970	.19	863,081	11
	1910—1911... ...	116.9	692,653	.90	168,128	.22	964,632	11
	1911—1912... ...	116.9	387,895	1.01	198,385	.26	1,079,223	11
	1912—1913... ...	116.9	894,660	1.14	213,318	.27	1,114,170	11
Aomori	1908—1909... ...	130.6	1,255,675	1.80	304,816	.44	1,400,642	19
	1909—1910... ...	125.9	1,144,318	1.61	287,079	.40	1,534,754	19
	1910—1911... ...	125.9	1,294,656	1.80	336,919	.47	1,742,086	20
	1911—1912... ...	125.9	1,385,478	1.90	390,973	.54	1,871,422	19
	1912—1913... ...	130.0	1,540,948	2.08	429,430	.58	1,973,595	19

15.—PASSENGER & GOODS RETURNS IN RELATION

Jurisdiction	Year	Mileage	Passenger Traffic		Goods Traffic		Traffic Receipts	
			No. of pass. carried	No. of journeys per capita of population	Tonnage of goods forwarded	Tonnage of goods forwarded per-capita of population	Amount	Rate per 1,000
					ton	*ton*	*yen*	*yen*
Yamagata	1908—1909... ...	112.3	918,132	1.03	105,166	.12	684,438	9
	1909—1910... ...	112.3	872,558	.97	107,676	.12	711,614	9
	1910 - 1911... ...	107.5	910,560	1.01	108,518	.12	757,832	9
	1911—1912... ...	107.5	1,053,379	1.16	149,506	.16	835,986	9
	1912—1913... ...	107.5	1,155,111	1.26	157,463	.17	902,276	9
Akita	1908—1909... ...	147.0	1,117,705	1.29	252,066	.29	1,240,407	16
	1909—1910... ...	147.0	1,117,243	1.27	304,776	.35	1,404,603	17
	1910—1911... ...	147.0	1,155,901	1.30	324,495	.36	1,550,172	18
	1911—1912... ...	147.0	1,270,155	1.41	346,898	.38	1,628,244	17
	1912—1913... ...	147.0	1,333,974	1.46	424,043	.46	1,866,184	18
Fukui	1908—1909... ...	63.6	1,058,399	1.73	151,492	.25	824,691	10
	1909—1910... ...	63.4	1,166,824	1.91	153,166	.25	883,967	11
	1910—1911... ...	63.4	1,137,517	1.87	170,171	.28	910,593	10
	1911—1912... ...	68.5	1,297,774	2.14	193,409	.22	1,004,639	10
	1912—1913... ...	69.1	1,459,314	2.41	201,621	.23	1,049,427	10
Ishikawa	1908—1909... ...	75.8	1,517,235	2.02	124,175	.17	995,207	13
	1909—1910... ...	79.7	1,414,303	1.88	112,352	.15	906,469	11
	1910—1911... ...	79.7	1,626,136	2.15	145,581	.19	1,117,730	13
	1911—1912... ...	79.7	1,840,193	2.43	161,735	.21	1,230,402	13
	1912—1913... ...	79.7	2,024,060	2.67	180,967	.24	1,272,238	12
Toyama	1908—1909... ...	45.7	759,626	1.01	61,460	.08	601,391	8
	1909—1910... ...	41.8	1,358,776	1 82	69,934	.09	703,018	9
	1910—1911... ...	56.5	1,595,983	2,16	86,471	.12	887,938	10
	1911—1912... ...	56.5	1,777,872	2.40	96,691	.13	959,569	10
	1912—1913... ...	56.5	1 879,611	2 55	112,382	.15	971,351	9
Tottori	1908—1909... ...	68.4	879,590	2.04	72,309	.17	373,144	5
	1909—1910... ...	68.4	909,072	2.13	66 516	.16	368,152	4
	1910—1911... ...	79.8	1,055,484	2.47	84,170	.20	462,920	5
	1911—1912... ...	84.6	1,148,296	2.68	83,702	.20	512,798	5
	1912—1913... ...	87.2	1,285,347	2.99	114,329	.27	722,056	7
Shimane	1908—1909... ...	18.0	12,281	.17	8,857	.01	83,932	1
	1909—1910... ...	28.6	33.303	.46	18,273	.03	152,599	2
	1910—1911... ...	38.3	55,337	.77	23,766	.03	216,672	2
	1911—1912... ...	38.3	67,318	.93	35,690	.05	377,974	3
	1912—1913... ...	43.0	88,970	1.21	44,049	.06	414,630	4
Okayama	1908—1909... ...	60.6	1,916,983	1.63	186,592	.16	1,185,691	5
	1909—1910... ...	60.6	1,875,361	1.59	202,841	.17	1,193,736	5
	1910—1911... ...	81.0	2,424,958	2.04	235,379	.20	1,369,334	6
	1911—1912... ...	81.0	2,575,403	2.16	263,822	.22	1,516,227	5
	1912—1913... ...	81.0	2,803,373	2.34	275,014	.23	1,664,619	6
Hiroshima	1908—1909... ...	112.0	3,178,019	2.07	253,507	.17	1,918,185	24
	1909—1910... ...	112.0	3,466,486	2.24	270,606	.17	2,007,826	25
	1910—1911... ...	112.0	3,904,760	2.49	269,452	.17	2,072,032	23
	1911—19.2... ...	112.0	3,547,687	2.43	282,444	.18	2,144,021	22
	1912—1913... ...	112.0	3,843,910	2.41	202,880	.19	2,327,495	22
Yamaguchi	1908—1909... ...	129.3	1,778,729	1.76	326,555	.32	1,941,867	24
	1909—1910... ...	129.3	1,714,670	1.69	310 027	.30	2,151.587	27
	1910—1911... ...	129.3	1,952,216	1.91	309,032	.30	2,474,038	28
	1911—1912... ...	129.3	2,048,754	1.99	331,649	.32	2,699,581	28
	1912—1913... ...	137.2	2,223,982	2.15	309,714	.30	2,815,931	27
Wakayama	1908—1909... ...	31.7	917,202	1.31	61,931	.09	325,423	4
	1909—1910... ...	31.7	988,071	1.40	65,597	.09	347,896	4
	1910—1911... ...	31.7	1,057,466	1.49	72,026	.10	400,470	5
	1911—1912... ...	31.7	1,148,962	1.61	77,139	.11	443,509	5
	1912—1913... ...	31 6	1,231,554	1.72	100,516	.14	494,533	5

TO POPULATION OF EACH PREFECTURE.—*Continued.*

Jurisdiction	Year	Mileage	Passenger Traffic		Goods Traffic		Traffic Receipts	
			No. of pass. carried	No. of journeys per capita of population	Tonnage of goods forwarded	Tonnage of goods forworded per capita of population	Amount	Rate per 1,000
		mile			*ton*	*ton*	*yen*	*yen*
Tokushima	1908—1909... ...	21.5	700,931	1.00	53,875	.08	138,261	2
	1909—1910... ...	21.5	676,790	.97	50,794	.07	132,920	2
	1910—1911... ...	21.5	697,884	.99	47,368	.07	135,257	2
	1911—1912... ...	21.5	745,356	1.06	68,084	.10	148,599	2
	1912—1913... ...	21.5	814,013	1.15	100,945	.14	168,298	2
Kagawa	1908—1909... ...	27.2	2,278,478	3.23	45,314	.06	381,510	5
	1909—1910... ...	27.2	2,234,714	3.16	42,966	.06	366,252	4
	1910—1911... ...	27.2	2,154,118	3.03	40,438	.06	392,428	4
	1911—1912... ...	27.2	2,304,405	3.23	51,706	.07	476,904	5
	1912—1913... ...	27.2	2,449,568	3.42	57,976	.08	529,538	5
Fukuoka	1908—1909... ...	236.8	8,346,059	5.10	7,102,744	4.34	8,392,452	106
	1909—1910... ...	337.0	8,406,812	5.06	7,140,079	4.30	8,379,019	104
	1910—1911... ...	233.1	8,658,979	5.13	7,650,787	4.53	8,565,060	97
	1911—1912... ...	229.2	7,566,644	4.41	8,560,211	4.98	8,926,968	91
	1912—1913... ...	229.2	7,635,574	4.37	9,453,131	5.42	9,962,328	94
Oita	1908—1909... ...	15.0	447,613	.52	48,351	.06	230,451	3
	1909—1910... ...	19.0	458,898	.53	44,472	.05	223,010	3
	1910—1911... ...	38.6	514,162	.59	50,493	.06	257,909	3
	1911—1912... ...	54.6	1,043,993	1.20	78,335	.09	538,419	5
	1912—1913... ...	54.6	1,214,543	1.39	85,848	.10	658,250	6
Saga	1908—1909... ...	85.3	2,313,395	3.56	853,404	1.31	1,224,998	15
	1909—1910... ...	85.3	2,203,649	3.37	759,821	1.16	1,132,979	14
	1910—1911... ...	89.7	2,182,027	3.33	856,341	1.31	1,206,840	14
	1911—1912... ...	87.3	2,693,642	4.09	1,094,644	1.66	1,674,768	17
	1912—1913... ...	87.3	2,164,000	3.27	1,163,190	1.76	1,449,804	14
Kumamoto	1908—1909... ...	101.8	2,262,573	1.88	209,965	.17	1,131,418	14
	1909—1910... ...	114.2	2,352,425	1.94	241,825	.20	1,217,433	15
	1910—1911... ...	114.2	2,232,584	1.83	263,722	.22	1,249,601	14
	1911—1912... ...	114.2	2,227,815	1.82	278,167	.23	1,364,838	14
	1912—1913... ...	114.2	2,407,609	1.96	305,582	.25	1,512,278	14
Miyazaki	1908—1909... ...	—	—	—	—	—	—	—
	1909—1910... ...	—	—	—	—	—	—	—
	1910—1911... ...	—	—	—	—	—	—	—
	1911—1912... ...	4.2	7,253	.01	5,998	.01	11,829	—
	1912—1913... ...	20.9	113,717	.20	56,874	.10	186,181	2
Kagoshima	1908—1909... ...	40.5	699,257	.56	62,175	.05	257,488	3
	1909—1910... ...	49.3	759,579	.60	72,145	.06	352,908	4
	1910—1911... ...	49.3	759,182	.59	102,307	.08	619,256	7
	1911—1912... ...	45.1	831,925	.64	120,427	.09	728,398	7
	1912—1913... ...	45.1	837,140	.64	131,564	.10	772,836	7
Hokkaido	1908—1909... ...	645.3	4,081,633	3.09	3,315,895	2.51	6,908,689	87
	1909—1910... ...	645.3	3,872,448	2.77	3,130,807	2.24	6,359,965	79
	1910—1911... ...	724.5	4,343,266	2.93	3,267,356	2.20	7,215,086	82
	1911—1912... ...	785.8	4,999,943	3.19	3,627,607	2.31	8,078,209	82
	1912—1913... ...	853.4	5,395,615	3.25	3,914,199	2.36	8,733,072	83
Total	1908—1909... ...	4,542.9	123,553,340	2.65	22,984,631	.49	79,260,185	1,000
	1909—1910... ...	4,624.4	128,951,591	2.73	23,113,241	.49	80,904,231	1,000
	1910—1911... ...	4,870.3	139,027,118	2.91	24,869,039	.52	88,098,004	1,000
	1911—1912... ...	5,044.1	151,307,554	3.09	28,515,958	.59	98,110,059	1,000
	1912—1913... ...	5,217.0	160,765,310	3.25	31,610,110	.64	105,561,067	1,000

N. B.—The returns of traffic receipts do not include earnings accruing from postal matter or from balance of charges paid by shippers by special agreement.

B. LINES PROJECTED.

The lines projected up to the 31st March, 1913, are as follows:—

Central Line.

From Hachioji or Gotemba to Nagoya via Kofu and Suwa.

From Nagano or Shinonoi to a junction on the foregoing line via Matsumoto.

From Kofu to Iwabuchi.

Connection between the Central and the Hokuroku Lines.

From Tajimi, Gifu-ken, to Gifu.

From a point on the foregoing line or Matsumoto to Toyama via Takayama, Gifu-ken.

Hokuroku Line.

(a) From Tsuruga to Toyama via Kanazawa; and (b) from a junction on the main line to Nanao. Maizuru to Tsuruga via Ohama.

From Toyama to Naoetsu.

The U-Etsu and the Gan-Etsu Lines.

(a) From Shibata, Niigata-ken to Akita via Murakami, Niigata-ken, Tsuruoka and Sakata, Yamagata-ken, and Honjo, Akita-ken; and (b) from a point on the main line to Yonezawa.

From Niitsu, Niigata-ken, to Shirakawa, Motomiya or thereabouts via Wakamatsu.

O-U Line.

From Fukushima or thereabouts to Aomori via Yonezaka, Yamagata, Akita, Hirosaki; and (b) from a point on the main line to Sakata.

From Sendai to Shinjo, Yamagata-ken, via Tendo, Yamagata-ken, Ishi-no-maki, and Kogota, Miyagi-ken.

From Kurosawajiri or Hanamaki, Iwate-ken, to Yokote, Aikita-ken.

From Morioka to Miyako or Yamada, Iwate-ken.

Sobu, Boso and Joban Lines.

From Ueno to Choshi via Chiba and Sakura.

From Funabashi to Sakura via Naruto and Togane, Chiba-ken.

From Soga, Chiba-ken, to Ohara via Kisarazu, Hojo and Katsuura.

From Mito to Iwanuma, Miyagi-ken, via Taira, Fukushima-ken.

From Taira to Koriyama.

Kinki Line.

From Nara to Kamitsuge, Mie-ken.

From Osaka or Yagi or Takata, Nara-ken, to Wakayama via Gojo.

From Kyoto to Nara.

From Kyoto to Maizuru.

Yamada to Toba, Mie-ken.

San-yo Line.

From Mihara, Hiroshima-ken, to Akamagaseki, Yamaguchi-ken.

From Kaidaichi to Kure.

From Okayama to Uno, Okayama-ken.

San-in Line.

(a) From Maizuru to Yamaguchi or thereabouts via Toyooka, Tottori, Matsue and Hamada; and (b) from a point on the main line to Hagi via Sakai, Tottori-ken, and Kizuki, Shimane-ken.

Connection between the San-yo and the San-in Lines.

From Himeji to Maizuru or Sonobe, Kyoto-fu, via Ikuno or Sasayama, Hyogo-ken; or from Tsuchiyama, Hyogo-ken, to Maizuru via Fukuchiyama.

From Wadayama, Hyogo-ken, to Tottori, or from Okayama to Yonago and Sakai via Tsuyama, Okayama-ken; or from Kurashiki or Tamashima, Okayama-ken, to Sakai.

From Hiroshima to Hamada.

Shikoku Line.

From Kotohira, Kagawa-ken, to Susaki, Kochi-ken via Kochi.

From Tokushima to a junction on the foregoing line.

From Tadotsu to Matsuyama via Imabaru.

Kyushu Lines.

From Saga to Saseho and Nagasaki.

(a) From Kumamoto to Misumi, Kumamoto-ken; and (b) from Udo to Kagoshima via Yatsushiro.

From Yatsushiro to Kagoshima via Komenotsu.

From Kumamoto to Oita.

From Kokura to Kagoshima via Oita and Miyazaki.

From Kurume to Kumamoto via Yamaga.

Hokkaido Lines.

From Asahigawa to Abashiri, Kitami Province, via Tokachibuto, Tokachi Province, and Akkeshi, Kushiro Province.

From Sunakawa, Ishikari Province, or thereabouts to Shimofurano, Ishikari Province.

(a) From Toshibetsu, Tokachi Province, to Oinouchi, Kitami Province; and (b) from Akkeshi to Nemuro.

From Asahigawa to Soya, Kitami Province.

From Amaryugenya, Ishikari Province, to Mashike, Teshio Province.

From Nayoro, Teshio Province, to Abashiri, Kitami Province.

From Otaru to Hakodate.

In the foregoing list the lines included in the first period construction program are as follows:—

Central Line.

From Hachioji to Nagoya via Kofu and Suwa.

From Shinonoi to a junction on the foregoing line via Matsumoto.

Hokuroku Line.

From Tsuruga to Toyama via Kanazawa.

From Maizuru to Tsuruga.

Connection between the Hokuroku and the Hoku-etsu Lines.

From Toyama to Naoetsu.

Hoku-etsu Line.

From Naoetsu to Niigata and Shibata.

U-Etsu and Gan-Etsu Lines.

From Niitsu to Kitagata.

O-U Line.

(a) From Fukushima or thereabouts to Aomori via Yonezawa, Yamagata, Akita and Hirosaki; and (b) from a point on the main line to Sakata.

From Kogota, Miyagi-ken to Shinjo, Yamagata-ken.

Sobu, Boso and Joban Lines.

(a) From Funabashi, Chiba-ken to Sakura; and (b) from Naruto to Togane.

(a) From Soga to Hojo, Chiba-ken; and (b) from Katsura to Ohara, Chiba-ken.

From Taira to Koriyama, Fukushima-ken.

Kinki Line.

From Kyoto to Maizuru.

From Takata, Nara-ken, to Wakayama via Gojo.

From Yamada to Toba, Mie-ken.

San-yo Line.

From Mihara, Hiroshima-ken, to Akamagaseki, Yamaguchi-ken.

From Kaidaichi to Kure.

From Okayama to Uno.

San-in Line.

(a) From Maizuru to Ogori via Hanada and Yamaguchi; and (b) from a point on the main line to Sakai, Tottori-ken, Kizuki, Shimane-ken and Hagi, Yamaguchi-ken.

From Kawada to Ikeda, Tokushima-ken.

From Tadotsu, Kagawa-ken, to Kawanoe, Ehime-ken.

Kyushu Lines.

From Saga to Nagasaki and Saseho.

From Kumamoto to Misumi, Kumamoto-ken.

From Kumamoto to Kagoshima via Yatsushiro.

(a) From Usa to Saeki, Oita-ken; and (b) from Miyazaki to Kagoshima via Yoshimatsu.

Hokkaido Lines.

From Asahigawa to Akkeshi via Tokachibuto.

From Sunagawa to Shimofurano.

From Akkeshi to Nemuro.

From Toshibetsu (Ikeda) to Abashiri.

From Asahigawa to Soya (Wakkanai).

From Amaryugenya (Fukagawa) to Rumoi.

52
1
3/14

IMPERIAL GOVERNMENT RAILWAYS OF JAPAN

(ALSO PRIVATE AND LIGHT RAILWAYS IN JAPAN PROPER
AND
THE SOUTH MANCHURIA RAILWAY)

Annual Report

FOR

THE YEAR ENDING MARCH 31st,

1914

Printed at the Tokyo Tsukiji Type Foundry.

IMPERIAL GOVERNMENT RAILWAYS OF JAPAN

(ALSO PRIVATE AND LIGHT RAILWAYS IN JAPAN PROPER

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Annual Report

FOR

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1914

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J271
1913/14

INTRODUCTORY.

This English edition of the Annual Report on the Imperial Government Railways of Japan is prepared practically upon the basis of the Japanese text of the same Report and on that account its issue is necessarily several months later than the other. In order to supplement and bring up-to-date the facts and figures contained in this Report the Abstract of Railway Statistics for the succeeding year has been specially prepared.

Both in form and substance the Report now issued has received some modifications with the object of rendering the presentation of data less complicated and more intelligent. To mention a few of the more salient points of the revision, 'Tables and Diagrams' which hitherto formed a separate part of the Report, were merged in the text of Section I and arranged under the corresponding chapters, the order of which has at the same time been altered to a certain extent.

It may be noted that Section II 'Private and Light Railways' and Section III 'Tramways' have reference only to privately-worked railways and tramways in Japan proper (*i.e.* excepting those in Chosen, Formosa and Japanese Saghalien) which, together with the South Manchuria Railway, are placed under control of the Imperial Government Railways of Japan in accordance with the Private Railway Law, the Light Railway Law and the Tramway Regulations, respectively. The results of the working of the State-owned light railway lines are dealt with in Section I.

WEIGHTS, MEASURES AND MONEYS, WITH ENGLISH, AMERICAN, FRENCH AND GERMAN EQUIVALENTS.

JAPAN	GREAT BRITAIN	UNITED STATES OF AMERICA	FRANCE	GERMANY
Ri.	2.44030 Miles.	2.44039 Miles.	3.92727 Kilomètres.	3.92727 Kilometer.
Shaku=.1 *Jo*=10 *Sun* =100 *Bu.*	1 ft. $2\frac{11}{12}$ inches.	1 ft. $2\frac{11}{12}$ inches.	.30303 Mètre.	.30303 Meter.
Ken=6 *Shaku*=60 *Sun.*	7 ft. $5\frac{1}{2}$ inches.	7 ft. $5\frac{1}{2}$ inches.	1.81818 Mètre.	1.81818 Meter.
Square *Ri.*	5.95505 Square Miles.	5.95505 Square Miles.	15.42347 Kilomètres Carrés.	15.42347 Quadrat-kilometer.
Chō=10 *Tan*=100 *Se* =3,000 *Tsubo.*	2.45064 Acres.	2.45064 Acres.	99.17355 Ares.	99.17355 Ar.
Tsubo.	3.95369 Square Yards.	3.95369 Square Yards.	3.30579 Centiares.	3.30579 Quadratmeter.
Koku=10 *To*=100 *Shō* =1,000 *Go.*	4.96005 Bushels.	47.65389 Gallons. (Liquid) 5.11902 Bushels. (Dry.)	1.80391 Hectolitres.	1.80391 Hektoliter.
Kwan=1,000 *Momme.*	8.26733 lbs. (Avoir.) 10.04711 „ (Troy.)	8.26733 lbs. (Avoir.) 10.04711 „ (Troy.)	3.75000 Kilogrames.	3.75000 Kilogramm.
Kin=160 *Momme.*	1.32277 lbs. (Avoir.) 1.60754 „ (Troy.)	1.32277 lbs. (Avoir.) 1.60754 „ (Troy.)	0.60000 Kilogrames.	0.60000 Kilogramm.
Yen=100 *Sen*=1,000 *Rin*	2s. 0d.582.	0.4984 Dollar.	2.583 Francs.	2.0924 Mark.

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IMPERIAL GOVERNMENT RAILWAYS OF JAPAN

ANNUAL REPORT

FOR

THE YEAR ENDING MARCH 31st, 1914.

GENERAL RESUME SUBMITTED BY THE PRESIDENT TO THE MINISTER-PRESIDENT OF STATE.

I have the honour to submit herewith the following report on the general working of the Imperial Government Railways of Japan, private and light railways and tramways in Japan proper and the South Manchuria Railway for the year ending March 31st, 1914. The total mileage of railways open to traffic at the end of the year under review was 7,231 miles, of which 5,473 miles were represented by the Imperial Government Railways, 1,061 miles by private and light railways, and 697 miles by the South Manchuria Railway. The train mileage totalled 67,600,502 miles, the vehicle mileage 1,214, 408,852 miles, the number of passengers carried 211,251,883 and the weight of goods hauled 47,063,324 tons, while the number of passengers carried one mile aggregated 4,227,712,134 and the weight of goods hauled one mile 4,223,855,803 tons. The total earnings derived from operation were 138,577,754 yen.

The mileage of tramways open to traffic aggregated 1,139 miles (comprising 565 miles of the electric, 203 miles of the steam-worked, 30 miles of the petroleum motor and 270 miles of the horse-drawn and 71 miles of the *rikisha* tramways). The vehicle mileage totalled 114,192,021 miles, the number of passengers carried being 576,229,774 and the weight of goods hauled 1,188,269 tons. The earnings derived from operation were 24,721,171 yen.

The returns for the State lines are as follows:—

Traffic results

The average mileage of railways open to traffic during the year under review was 5,298 miles for passenger traffic and 5,344.3 miles for goods traffic, an increase over the preceding year of 213.8 miles in the former and 218.2 miles in the latter. The train mileage aggregated 57,402,803 miles, the vehicle mileage 1,082,208,212 miles, being 3,408,871 miles and 93,952,225 miles, respectively, more than in the preceding year. The number of passengers carried totalled 167,773,143 and the weight of goods moved 36,348,362 tons, an increase of 7,061,406 in the former and 3,811,017 tons in the latter as compared with the preceding year. The total number of passengers carried one mile were 3,690,964,619 and the aggregate weight of goods moved one mile 3,053,852,638 tons, being 64,648,120 and 362,388,464 tons more than the respective figures for the preceding year.

The earnings from operation were 55,975,342 yen for the coaching service, 53,368,932 yen for the goods, 2,240,842 yen for the shipping and 111,585,116 yen for the total, being an increase over the preceding year's figures of 5,760,592 yen in the total.

Passenger Traffic

In reviewing the general results of traffic, it is noted that the depressing influence of the national mourning was generally manifest everywhere throughout the first half year, though, it is true, during the spring months a fair volume of passenger traffic was returned, notably in those districts served by the Hokuroku line, the last section of

which was newly opened to traffic, thus ushering in a new era in the through route with the Shin-Etsu line.

The Colonial Exhibition held at Osaka in May and the celebration of the anniversary of the demise of the late Emperor in July attracted a substantial number of visitors to the seats of the respective functions. With the expiry of the period of the national mourning, which happened at the time of exodus of people to summer resorts, a general quickening of the passenger service began to be noticed, the returns of August and September being the heaviest on record for the year under review. In autumn the industrial fairs held at Yokohama and Toyama and the launching ceremony of the battle-cruiser "Haruna" at Kobe served an occasion of enlivening business, while the returns of holiday-makers going on autumnal picnics, such as maple-viewing and mushroom-gathering, compared well with the figures of the average year. The natural disasters in Akita and Kagoshima prefectures deranged train service to more or less extent, but on the whole the year closed with a fair prospect of business owing to the brisk transport of party passengers and visitors to the Taisho Exhibition held at Tokyo.

Goods Traffic

As compared with passenger traffic, goods business kept up a very satisfactory show throughout the year. The prosperous conditions noticed in the closing months of the preceding year were well maintained down to summer, foreign rice, manures, cotton yarn and tissue and other commodities returning, one and all, an unusually heavy booking. Owing to the crop failure the business was seriously affected in the Hokkaido and the north eastern districts, but what was lost in this direction was partially made good by the traffic in cereals, manures, fuels, charcoals and other goods which were immensely carried from and to the above-mentioned districts under 50 per cent. discount rates specially adopted for the benefit of the famine-stricken people. Toward the end of the fiscal year, the delivery of articles of summer consumption began, as is annually the case, to show signs of activity.

Traffic Arrangements

To give a list of the more important arrangements made for the service during the year under review, on April 20th the Awa Kyodo Kisen Steamshipping Co.'s railway line, a distance of 6.9 miles, and on October 13th the Ashio Railway Co.'s Shimoshinden-Ashio line, 25.7 miles, were leased and brought under the direct working of the Imperial Government Railways.

On November 1st a revision was effected in the Rules of Railway Transportation, whereby the new provision was made for allowing dogs and other pet animals to be taken into carriages, while a measure was devised to prevent fraudulent attempts to misrepresent consignment as to designation and amount.

On October 1st, first class carriages were withdrawn from a portion of local train service, the second and third class carriages being substituted in their place.

As a devise of fostering the export of cotton yarn and tissue bound for Manchuria, which began to grow in amount of recent years, a reduction of freight thereon was put into force on August 10th in league with the Chosen Railway.

Joint Traffic

An extension was given to the scope covered by the oversea through traffic arrangements. The direct passenger and luggage service with the leading points in Western Europe for conveyance of passengers was inaugurated on June 10th, and on October 1st a similar service was opened with Peking and Tientsin on the Peking-Mukden line of the Chinese Government Railways.

At home, also, joint traffic arrangements were newly concluded with 16 railways and 3 steamshipping concerns.

During the year working expenses amounted to 14,979,459 yen, an increase of 877,112 yen over the preceding year.

Shipping

The average length of lines worked for steamer service in operation during the year under review was 218.3 nautical miles. The number of steamers in commission at the end of the year was 35 representing a gross tonnage of 19,640 tons, of which 4 vessels with a gross tonnage of 4,233 tons were chartered. The trips made during the year numbered 36,473. The expenses incurred by the shipping service during the year amounted to 2,379,085 yen, being 761,191 yen more than in the preceding year.

Locomotive Working

During the year under review locomotive mileage totalled 68,744,136 miles (inclusive of the figures of steam motor cars), vehicle mileage 1,212,827,176 miles, the amount of coal consumed for running purposes 2,910,164,152 *kin* (inclusive of 4,105,720 *kin* of petroleum dregs as converted at 1 *sho* of oil=5.4 *kin*) representing 7,702,947 yen in value, while the amount of oil consumed aggregated 16,139 *koku* representing 348,954 yen in value. Compared with the preceding year's figures, these items show an increase of 3,946,251 miles in locomotive mileage, of 129,119,631 miles in vehicle mileage, of 262,687,087 *kin* in the amount of coal consumed representing 819,267 yen in value, and of 1,003 *koku* in the volume of oil consumed representing 49,463 yen in value. As regards the average of the foregoing items per 100 locomotive miles, coal works out to 4,233 *kin* representing 11.205 yen, an increase of 147 *kin* or 3.6 per cent. in amount and of .582 yen or 5.5 per cent. in value, and oil runs to .0235 *koku* representing .508 yen, an increase of .0001 *koku* or .4 per cent. in amount and an increase of .046 yen or 10 per cent. in value, while the amount of coal per 1000 vehicle miles works out to 2,399 *kin* representing 6.351 yen, a decrease of 44 *kin* or 1.8 per cent. in amount and .001 yen in value. The increase in the amount of coal per 100 locomotive miles is accounted for by the increased service of larger type engines, whose enhanced efficiency is demonstrated by the proportional decrease in the coal consumption per 1000 vehicle miles.

Transportation expenses required during the year under review totalled 14,892,049 yen, an increase of 1,487,279 yen as compared with the preceding year.

Rolling Stock

Rolling stock returns existing at the end of the year under review comprised 2,500 locomotives, 4 Imperial carriages, 6,449 passenger carriages and 42,705 goods wagons, showing an increase over the preceding year of 119 locomotives, 305 passenger carriages and 2,178 goods wagons. During the year various provisions were made for rolling stock and divers improvements carried thereon.

Rolling stock expenses incurred during the year amounted to 7,663,981 yen, being 19,546 yen more than in the preceding year.

Electricity

The length of electric communication lines extended 2,256 *ri*, and communication wires 24,151 *ri* with 2,035 sets of telegraph, 9,439 sets of telephone and 2,818 sets of block apparatus.

The number of messages accepted for transmission at properly equipped 1,486 stations totalled 48,011,977, inclusive of 6,746,526 of public telegrams for which the Railways received 248,656 yen as their share in the service. The power and transformer stations numbered 41 with 61 prime motors installed thereto developing 11,058 h.p., while generators aggregated 63 developing 8,217.54 k.w. and transformers 94 developing 8,383.5 k.w. The total length of power cables measured 116 *ri* and their wire length 442 *ri* with 392 motors in use representing 5,123,416 watts. The number of electric trams were 87 with 236 motors for running purposes representing 11,592 h.p. The electric lighting apparatus comprised 51,553 glow lamps developing 3,081,146 watts, 710 arc lamps with 419,019 watts, and 28,588 lamps fitted in carriages. Altogether, 13,455,896 k.w.h. were generated and 6,257,149 k.w.h. transformed.

The mileage travelled by electric trams aggregated 4,952,495 miles with 5,823,941 k.w.h. of current consumed for the running, while the electric locomotive mileage totalled 122,155 miles with the current consumed to the amount of 2,246,847 k.w.h.

Finance

The revenue account for the year under review gives 117,897,677 yen for revenue, 96,780,934 yen for expenditure and 1,322,428 yen for the balance of the light railway subsidies, leaving a surplus of 19,794,315 yen. After deducting light railway subsidies, rebates and advances, expenses on account of track supervision, surveying, additional expenses and interest charges, there are left 113,477,055 yen for earnings and 54,551,246 yen for expenses, netting a profit of 58,925,809 yen. Compared with the preceding year's figures, the earnings increased by 5,451,417 yen, the expenses by 4,537,599 yen and the profit by 913,818 yen. The percentage of expenses to earnings from operation stands at 48.1 per cent., being an increase of 1.8 per cent.

As regards the reserve fund account, the revenue for the year amounted to 2,609,310 yen, which were carried forward to the next year's account, there being no disbursement charged to the same account during the year.

In the railway stores and workshop account, the profit amounted to 42,998,614 yen and the loss to 43,076,289 yen, leaving a debit balance of 77,675 yen.

The capital consolidated from the inception of the service down to the end of the preceding year aggregated 932,671,280 yen, to which were added 40,420,215 yen for the year under review, bringing the total to 973,091,495 yen of which 219,252,564 yen were represented by special capital and 753,838,931 yen by the loans.

Railway Stores

The purchase of railway stores totalled 33,081,213 yen including 2,900,375 yen of foreign purchase. Compared with the preceding year, the domestic supplies decreased by 6,106,916 yen, the foreign purchase by 3,175,244 yen and the total by 9,282,160 yen.

Maintenance Work

In maintenance work numerous provisions were made where necessary throughout the system with a view to maintaining the tracks in efficient condition commensurate with the requirements of increasing traffic. To be particular, the re-sleepering, the repair of roadbeds, the repainting and re-rivetting of iron bridge girders, the replacement of worn-out rails and fastenings as well as the repair of buildings were assiduously attended to, while on the other hand extensive repairs and alterations were carried out to permanent way and buildings in connection with the additional and improvement works. Though no small sum was expended upon emergency and restoration works incidental to hurricanes, torrential rainfall and washaways which involved the lines in more or less damage during the year, the best attention was paid to keeping down expenses as well as to ensuring the satisfactory repairs. Then, the remaining portion of the repair work due to the damage from the floods in the previous years was carried out in several parts of the system.

The amount of expenses debited to the maintenance work during the year was 12,624,686 yen, an increase of 1,272,183 yen over the preceding year.

Additional Work

In additional work, in pursuance of the policy of securing the facilities adequate to cope with the increasing traffic, particular attention was directed to the increase of siding accommodation, the enlargement and repair of buildings and structures and also the betterment of signalling and other safety appliances, while various provisions were made in order to ensure better track and station accommodation.

The amount of expenditure debited to the additional work was 1,617,392 yen, an increase of 556,649 yen over the preceding year.

Improvement Work

To mention some of the more important items of improvement work carried out during the year under review, the laying of two additional tracks on the Ueno-Uguisudani section, North Eastern line, and the duplication work on the Oyama-Utsunomiya section and the Kitasenju-Abiko section, Joban line, were brought to a finish. In the Tokaido line where the rearrangement of tracks and stations had been in hand for some years past, substantial progress was made as regards the laying of two additional tracks between Shimbashi and Hodogaya, while the erection of the new Yokohama station was started, and the remaining portion of the duplication work was finished for the whole line with the completion of the girder erection of the Tenryu bridge. As to the laying of two additional tracks on the Shinagawa-Tabata section, Yamanote line, the duplication work between Shinagawa and Osaki was well forward, while the reclamation and extension at Shinagawa was nearing completion. In the duplication work on the Ofuna-Yokosuka line taken in hand during the year, the construction of a second line between Zushi and Taura and the erection of a new signal cabin were finished in greater parts. The water-and-rail terminal 'Link' and connected works for the Shimonoseki-Fusan ferry service were also well advanced. In the Kansai line, the duplication work between Osaka and Tamatsukuri was practically completed, while plate-laying was finished for the Kizu and Nara duplication work, the enlargement of Kizu station brought to the verge of completion, and the purchase of land nearly finished for the enlargement of Nara station. In the Kagoshima line, the duplica-

tion between Orio and Ongagawa and the laying of Shippu branch line, continued from the preceding year, were completed. As regards the improvement work on the Hakodate-Otaru section, Hakodate line, the water-and-rail terminal 'Link' and connected works at Hakodate were commenced and the second reclamation work at Otaru completed in greater parts, while the reclamation and extension work at Temiya was completed as regards the pier and connected works continued from the preceding year. The Muroran reclamation and extension work was finished as regards the reclamation of the first section in the western part and the equipment of the recovered land in the eastern part, the completion of the track-laying on the latter section being now within sight. In the duplication between Oiwake and Yubari, the work on the Momijiyama and Shimizuzawa section made substantial progress. In the Tokyo Street line, the exterior and interior work of the Central Station building, continued from the preceding year, was finished, and the equipment and connected works are now well forward, while good progress was made with the construction of the main building of Karasumori station. The Central Station-Ueno and the Kajicho-Manseibashi section remain practically as they were left at the end of the preceding year.

New Stations

The new stations erected during the year comprised 3 on each of the Tokaido and the Kagoshima line, 2 on the Central line and one on each of the San-yo, the O-U, the Hakodate, the Kushiro, the Abashiri and the Horonai line, while a new block station was built on each of the Tokaido, the Shin-Etsu, the Hakodate and the Kushiro line.

The following are some of the more important stations on which extension work was carried out during the year under review :—

Tabata, Omiya, Koriyama, Ichinoseki and Itabashi on the North Eastern line; Yokosuka, Numazu, Suzukawa, Nakaizumi, Gifu, Maibara, Kyoto and Osaka on the Tokaido line; Hiroshima on the San-yo line; Kameyama on the Kansai line; Moji, Tobata, Kumamoto and Konoha on the Kagoshima line; Nishikaratsu, Haiki and Kanzaki on the Nagasaki line; Wakamatsu, Kotake and Nakama on the Chikuho line; Asahigawa on the Hakodate line.

Permanent way improvement was carried out where necessary throughout the system, including the enlargement of space between track centres, the reduction of gradients and curves, the construction of new bridges and renewal thereof, the replacement of light rails by heavier metals, the strengthening of the tracks with additional sleepers, and improvement of the roadbeds, while steps were taken to replace bridge girders by stronger metals and otherwise to re-inforce the girders.

The amount of expenditure on account of improvement work for the year was 22,591,407 yen, a decrease of 8,426,358 yen against the preceding year.

The length of lines open to traffic during the year was 5,472.7 miles (inclusive of 60.2 miles of the leased lines), being an increase of 255.7 miles over the preceding year, while the length of all tracks extended 8,323 m. 22 ch., an increase of 425 m. 74 ch. over the preceding year. The number of stations in service totalled 1,529, being 88 more than in the preceding year.

Construction Work

The following is a brief abstract of the more important items of construction work :—

The Izumoimaichi-Oda section, Hamada line, was completed and opened to traffic on November 21st, 1913 as previously arranged, though the work was seriously hampered on account of the loose strata which marked the section at places. As regards the Oda-Hanenishi and the Hanenishi-Asari section, the same line, a slight modification was made in the plan of track and bridging in view of floods and other considerations.

No noteworthy progress was made in the construction of the Tsuwano line which was taken up only in parts.

Except the erection of a few buildings, no substantial start was made with the Obama line.

The remainder work on the Omi-Itoigawa section, Toyama line, was brought to

a finish and opened for service on April 1st, 1913 wherewith the opening of through service was effected on the whole of the Toyama-Naoetsu line.

In regard to the Kitakata-Tokusawa section, Gan-Etsu line, the construction of the Kamanowaki cantilever bridge over the river Akano was brought to completion without a hitch, and with all equipment completed, the service was opened on the Yamato-Nozawa section on August 1st, 1913. The work on the Tokusawa-Omaki section which was seriously retarded owing to numeroue engineering difficulties, remained to be finished as yet, while, with the completion of the Omaki-Satori subsection, the service was opened on the Maoroshi-Tsukawa section on June 1st, 1913.

The Murakami line was practically completed as regards earthwork and other connected works.

The Koriyama-Miharu section, Taira line, was finished with the exception of a small part of work, and is expected that it will be ready for operation early next year, the work on the remainder portion being well in hand.

In the Shinjo line, the Kogota-Iwadeyama section was completed and opened to traffic on April 20th, 1913 while the work on the Iwadeyama-Kawatabi section was practically finished and is expected to be available for use early next year. A partial alteration was made in the plan of tunneling work on the Kawatabi-Shinjo section which is regarded as one of the toughest works. The work on the Shinjo-Kiyokawa section, too, met with no small difficulties, but it was proceeded with as previously arranged, the Shinjo-Furukuchi section being opened for service on December 7th, 1913 and the Furukuchi-Kiyokawa section ready to be put into service early next year. Completion was practically effected on the Kiyokawa-Sakata section with the exception of part of the bridging of the river Mogami.

The Ohara-Katsuura section, Boso line, was completed with the equipment of all necessary provisions and opened for service on June 20th, 1913, the through service being thereby opened on the whole of the Boso line.

The Kisarazu-Minato section, Hojo line, made fair progress, while the work on the Minato-Hojo section has not made any substantial progress as yet.

The Oita-Kozaki section, Saiki line, was finished and is expected to be ready for operation early next year. No particular progress was made as yet with the Kozaki-Saiki section owing to the presence of loose strata at places.

The Tokushima line was opened for service on March 25th, 1914, and the Tadotsu-Kannonji section, Tadotsu line, was finished as originally arranged, the service being opened thereon on December 20th, 1913.

In the Sendai line, the Kagoshima-Higashiïchiki section was opened for service on October 11th, 1913 and the Higashiïchiki-Kushikino section on December 15th, 1913, while the remainder sections are finished and expected to be available for use at the beginning of next year.

In the Miyazaki line, the Kobayashimachi-Tanigashira section was opened to traffic on May 11th, 1913, the Tanigashira-Miyakonojo section on October 8th, 1913, and the Miyakonojo-Mimata section on February 11th, 1914. The Mimata-Yamanokuchi section, too, was well forward and is expected to be available for operation next year.

The Otoineppe-Kotombetsu section, Soya line, was seriously retarded owing to the difficulty in the transport of material. However, the work made fair progress, so that it is expected to be put into service next year. No progress was made with the work on the Kotombetsu-Nakatombetsu section, as only a portion of it was taken up this year.

The Shimofurano line was brought to a finish as prearranged, and opened to traffic on November 10th, 1913.

As regards the Nemuro line, commencement was made with the purchase of land, no work being taken in hand as yet.

Turning next to light railway lines, the Moka line was opened for service on July 11th, 1913, the Kamiiso line on September 15th, 1913, the Akayu-Nashigo section, Nagai line, on October 26th, 1913, and the Oiwake-Futada section, Funakawa

line, on November 9th, 1913. The remainder portion of the Manji and the Nagai line as well as part of the Funakawa, the Inukai, the Miyaji, and the Yubetsu line were completed in greater parts and are expected to be available for use next year.

The total outlay on construction works during the year amounted to 18,686,241 yen, an increase of 9,546,896 yen over the preceding year.

Railway Laboratory

In the Laboratory of the Railway Investigation Office, chemical experiments were carried out on cement, rubber, oils, brick, metals, etc., and tests made on the strength of metals and other materials. Tests were also conducted on the consumption of fuel and the tractive power of locomotives.

As regards sleepers, tests are now in progress on different kinds of wood creosoted, laying them on the specified tracks with a view to ascertain their durability.

Relief Association

In regard to the Relief Association, the Membership on the roll at the end of the year under review aggregated 102,352, an increase of 2,429 against the preceding year. The revenue to the coffers of the Association totalled 1,095,865 yen, and the expenditure 610,874 yen, and the balance 484,991 yen and 1,982,132 yen brought over from the preceding year's account, the total carried forward to the next year's account amounting to 2,467,123 yen. The Association maintains the Tokiwa Hospital in Tokyo and 10 dressing rooms at the workshops in the different localities.

The foregoing is the general resume of the results of the working of the Imperial Government Railways of Japan for the year ending March 31st, 1914, and for details I beg to refer Your Excellency to the reports and tables appended hereto.

I have the honour to be,

Sir,

Your Excellency's obedient Servant,

MITSUGU SENGOKU, *Kogakuhakushi*

President, Imperial Government Railways.

December 21st, 1914.

To His Excellency

COUNT SHIGENOBU OKUMA,

Minister-President of State.

Section

I

Imperial Government Railways.

SECTION I.

IMPERIAL GOVERNMENT RAILWAYS.

SUMMARY OF RAILWAY STATISTICS FOR THE YEAR AS COMPARED WITH THE TWO PRECEDING YEARS.

Item \ Year	1913–14	1912–13	1911–12
Open Mileage { Route mile	**5,470.64**	5,217.16	5,043.20
Open Mileage { Track mile	**8,202.18**	7,774.46	7,424.27
No. of Stations	**1,529**	1,441	1,389
Locomotives	**2,499**	2,381	2,305
Passenger Carriages	**6,453**	6,148	5,893
Goods Wagons	**42,705**	40,527	37,952
Train Mileage	**57,402,803**	53,993,932	48,730,784
Vehicle Mileage	**1,082,208,212**	988,255,987	899,629,853
Passengers Carried	**167,773,143**	160,711,737	151,077,779
Passengers Carried One Mile	**3,690,964,619**	3,626,316,499	3,382,586,411
Tonnage of Goods Hauled	**36,348,362**	32,537,345	29,337,054
Tonnage of Goods Hauled One Mile	**3,053,852,638**	2,691,464,174	2,347,871,475
Earnings from Passenger Traffic (yen)	**55,975,342**	54,306,013	50,674,259
Earnings from Goods Traffic (yen)	**53,368,932**	49,377,673	45,675,693
Revenue Account { Traffic Receipts (yen)	**113,477,055**	108,025,638	100,179,818
Revenue Account { Working Expenses (yen)	**54,551,246**	50,013,647	45,768,256
Revenue Account { Profit (yen)	**58,925,809**	58,011,991	54,411,562
Capital (yen)	**973,091,496**	932,671,281	872,229,998
Percentage of Working Expenses to Receipts (yen)	**.48**	.46	.46
Percentage of Receipts to Capital (yen)	**.116**	.116	.115
Percentage of Working Expenses to Capital (yen)	**.056**	.054	.052
Percentage of Profit to Capital (yen)	**.062**	.062	.063
Profit (yen)	**58,925,809**	58,011,991	54,411,562
Deduct—Inspection and Survey Expenses (yen)	**188,258**	246,586	256,835
Deduct—Additional Expenses (yen)	**2,617,391**	2,06 ,743	1,843,102
Deduct—Interest Charges for Loans (yen)	**35,575,844**	35,572,603	31,809,462
Deduct—Surplus in Subsidies to Light Railways carried forward to next year (yen)	**750,000**	500,000	250,000
Net Profit (yen)	**19,794,315**	19,632,059	20,252,164
No. of Employees	**112,087**	109,983	103,418

CHAPTER I.

LINES OPEN TO TRAFFIC AND UNDER CONSTRUCTION.

(1) LINES OPEN TO TRAFFIC.

Railway lines open to traffic at the end of the year under review are as follows :—

(a) Tokyo Division.

Line	Section	Route Mile	Track Mile	No. of Stations
		m. ch.	*m. ch.*	
Tokaido Main	Shimbashi-Hamamatsu	166.23	448.37	50
	Hamamatsucho-Gofukubashi	1.70		
	Kanagawa-Yokohama-Hodogaya	4.08		
	and Goods Branch	3.11		
Yokohama (leased)	Higashikanagawa-Hachioji	26.35	32.12	8
	and Goods Branch	1.14		
Yokosuka	Ofuna-Yokosuka	10.03	12.58	4
Central Main	Manseibashi-Kisofukushima	171.51	263.45	56
Shinonoi	Shiojiri-Shinonoi	42.06	51.75	8
North Eastern Main	Ueno-Aomori	457.05	703.67	106
	and Goods Branch	1.15		
Yamanote	Akabane-Shinagawa	12.76	51.60	15
	Ikebukuro-Tabata	3.20		
	Osaki-Oi	.72		
Joban	Nippori-Iwanuma	213.12	339.61	64
	Tabata-Mikawajima	1.01		
	and Goods Branch	1.75		
Takasaki	Omiya-Takasaki	46.35	63.31	13
Ryomo	Oyama-Takasaki	57.04	67.46	15
Ashio (leased)	Shimoshinden-Asio	25.46	31.46	10
Mito	Oyama-Tomobe	31.27	39.05	10
Moka (Light Rly.)	Shimodate-Nakai	17.57	20.24	7
Nikko	Utsunomiya-Nikko	25.04	29.69	5
Gan-Etsu	Koriyama-Nozawa	65.01	78.25	16
Shiogama	Iwakiri-Shiogama	4.24	6.03	1
Hachinohe	Shiriuchi-Minato	5.04	5.66	2
O-U Main	Fukushima-Aomori	302.23	382.34	59
	and Goods Branch	1.10		
Nagai (Light Rly.)	Akayu-Nashigo	4.21	4.72	2
Sakata	Shinjo-Furukuchi	10.46	11.63	2
Funakawa (Light Rly.)	Oiwake-Futada	6.38	6.63	1
Noshiro	Hataori-Noshiro	2.39	3.58	1
Kuroishi (Light Rly.)	Kawabe-Kuroishi	4.06	4.62	1
Riku-U	Kogota-Iwadeyama	15.35	17.59	3
Shin-Etsu	Takasaki-Niigata	203.52	334.65	63
	Niitsu-Tsukawa	23.78		
	Niitsu-Shibata	16.14		
Sobu Main	Ryogokubashi-Choshi	72.55	121.47	27
	and Goods Branch	.41		
Boso	Chiba-Katsuura	44.23	55.07	16
Kisarazu	Soga-Kisarazu	19.33	24.49	6
Togane	Oami-Naruto	8.46	10.05	2
Total		**2,131.64**	**3,224.34**	**573**

(b) Kobe Division.

Line	Section	Route Mile	Track Mile	No. of Stations
		m. ch.	*m. ch.*	
Tokaido Main	Hamamatsu-Kobe	208.58	556.16	60
	and Goods Branch	8.27		
Buho	Ofu-Taketoyo	12.01	15.08	4
Nishinari	Osaka-Sakurajima	4.70	20.55	5
Fukuchiyama	Kanzaki-Fukuchiyama	67.22	86.17	25
	Tsukaguchi-Amagasaki	2.69		
Hokuroku Main	Maibara-Naoetsu	227.04	292.20	58
	and Goods Branch	1.64		
Kanatsu	Kanatsu-Mikuniminato	6.02	7.30	2
Nanao	Tsubata-Yadashin	34.28	38.45	14
Central Main	Kisofukushima-Nagoya	82.16	103.51	15
	and Goods Branch	1.03		
San-yo Main	Kobe-Shimonoseki	329.21	506.58	87
	Hyogo-Wadamisaki	1.40		
	and Goods Branch	.29		
Ban-Tan	Kashima-Wadayama	44.28	52.09	17

(b) Kobe Division.—*Continued.*

Line	Section	Route Mile	Track Mile	No. of Stations
		m. ch.	*m. ch.*	
Uno	Okayama-Uno	20.30	25.24	8
Kure	Kaidaichi-Kure	12.34	15.78	6
Ujina	Hiroshima-Ujina	3.52	5.63	3
Yamaguchi	Ogori-Yamaguchi	7.70	9.27	3
Omine	Asa-Omine	12.15	15.49	4
San-in Main	Kyoto-Oda	249.41	318.79	64
	and Goods Branch	1.21		
Maizuru	Ayabe-Shinmaizuru	16.35	22,21	4
	Maizuru-Umimaizuru	1.11		
Kurayoshi (Light Rly.)	Agei-Kurayoshi	2.50	3.15	2
Sakai	Yonago-Sakai	10.63	13.74	3
Daisha	Izumoimaichi-Daisha	4.52	5.60	2
Kansai Main	Nagoya-Minatomachi	108.65	174.60	34
Sangu	Kameyama-Toba	44.41	69.22	15
Kusazu	Tsuge-Kusazu	22.49	25.00	5
Nara	Kizu-Kyoto	21.47	25.31	10
Sakurai	Nara	18.20	23.60	10
Katamachi	Kizu-Katamachi	28.11	37.46	13
	and Goods Branch	2.23		
Wakayama	Oji-Wakayama	54.51	68.72	24
	and Goods Branch	.72		
Joto	Tennoji-Osaka	6.46	14.63	5
Sanuki	Takamatsu-Kannonji	34.65	57.49	19
	Tadotsu-Kotohira	6.74		
	and Goods Branch	1.13		
Tokushima Main	Tokushima-Awaikeda	45.79	57.10	20
Komatsushima (Light Rly.)	Tokushima-Komatsushima	6.71	9.16	3
Total		**1,779.03**	**2,668.31**	**544**

(c) Kyushu Division.

Line	Section	Route Mile	Track Mile	No. of Stations
		m. ch.	*m .ch.*	
Kagoshima Main	Moji-Kagoshima	239.05	395.47	65
	and Goods Branch	1.39		
Muroki	Ongagawa-Muroki	6.75	10.43	3
Sasaguri	Yoshizuka-Sasaguri	6.33	8.76	2
Misumi	Uto-Misumi	15.70	17.24	4
Nagasaki Main	Tosu-Nagasaki	98.45	125.49	25
Karatsu	Kubota-Nishikaratsu	26.63	50.50	15
	Yamamoto-Kishidake	2.44		
	and Goods Branch	2.41		
Imari	Arita-Imari	8.10	9.26	3
Saseho	Haiki-Saseho	5.42	6.46	2
Hoshu Main	Kokura-Oita	82.14	107.28	25
Tagawa	Yukuhashi-Soeda	23.08	48.09	17
	and Goods Branch	4.67		
Miyatoko	Gotoji-Miyatoko	1.61	5.05	3
	and Goods Branch	.24		
Chikuho	Wakamatsu-Kamiyamada	33.23	114.61	25
	and Goods Branch	11.22		
Kazuki	Nakama-Kazuki	2.14	4.46	4
Ida	Nogata-Ida	9.73	34.03	12
	and Goods Brrnch	4.11		
Kirino	Katsuno-Kirino	3.21	8.16	3
	and Goods Branch	1.33		
Kobukuro	Kotake-Futase	4.57	11.52	7
	and Goods Branch	1.47		
Nagao	Iizuka-Nagao	3.50	5.36	3
	and Goods Branch	.20		
Miyazaki	Yoshimatsu-Mimata	40.77	50.01	9
Sendai	Kagoshima-Kushikino	23.16	28.77	7
Total		**665.65**	**1,042.55**	**234**

(d) Hokkaido Division.

Line	Section	Route Mile	Track Mile	No. of Stations
		m. ch.	*m. ch.*	
Hakodate Main	Hakodate-Asahigawa	265.43	429.52	69
Kamiiso (Light Rly.)	Goryokaku-Kamiiso	5.35	6.10	2
Horonai	Iwamizawa-Horonai	8.35	19.28	4
	Horonaibuto-Ikushunbetsu	4.39	18.03	2
Utashinai	Sunagawa-Utashinai	8.76	10.49	2
Temiya	Otaru-Temiya	1.57	11.53	3
Iwanai (Light Rly.)	Kozawa-Iwanai	9.23	142.08	22

(d) Hokkaido Division.—*Continued.*

Line	Section	Route Mile	Track Mile	No. of Stations
		m. ch.	*m. ch.*	
Muroran Main	Iwamizawa-Muroran	86.58	142.08	22
Yubari	Oiwake-Yubari	27.12	52.28	8
	Momijiyama-Kaede	3.00		
Rumoi	Fukagawa-Rumoi	31.09	41.39	8
Kushiro Mine	Takikawa-Kushiro	193.78	238.63	37
Furano	Shimofurano-Asahigawa	33.70	36.52	4
Soya	Asahigawa-Otoineppu	80.21	94.66	15
Abashiri	Ikeda-Abashiri	120.32	138.64	18
Yubetsu	Nokkeushi-Rubeshibe	14.12	16.36	3
Total		**894.40**	**1,256.71**	**197**
Grand Total		**5,471.12**	**8,202.31**	**1,548**

(2) LINES NEWLY OPENED FOR TRAFFIC.

The following lines were newly opened for traffic during the year under review :—

Line	Section	Mileage	Date Opened for Traffic
		m. ch.	
Moka (Light Rly.)	Moka-Nanai	7.37	July 11, 1913
Gan-Etsu	Yamato-Nozawa	9.27	Aug. 1, 1913
Nagai (Light Rly.)	Akayu-Nashigo	4.21	Oct. 26, 1913
Sakata	Shinjo-Furukuchi	10.46	Dec. 7, 1913
Funakawa (Light Rly.)	Oiwake-Futada	6.38	Nov. 9, 1913
Riku-U	Kogota-Iwadeyama	15.35	April 20, 1913
Gan-Etsu	Maoroshi-Tsukawa	13.23	Jan. 1, 1913
Boso	Ohara-Katsuura		
Toyama	Omi-Itoigawa	4.12	April 1, 1913
San-in Main	Izumoimaichi-Oda	9.47	Nov. 21, 1913
Katamachi	Hanaten-Nakano	.38	Nov. 15, 1913
Sanuki	Takamatsu-Tadotsu	.62	Dec. 20, 1913
	Tadotsu-Kannonji	14.62	
	Tadotsu-Hamatadotsu	1.13	
	Tadotsu-Kotohira	1.67	
Tokushima Main	Kawada-Awaikeda	25.27	March 25, 1914
Chikuho Main	Kamiiso-Urushio	3.48	Aug. 20, 1913
	Niita Junction-Niita	1.47	July 1, 1913
Miyazaki	Kobayashimachi-Tanikashira	17.16	May 11, 1913
	Tanikashira-Miyakonojo	4.32	Oct. 8, 1913
	Miyakonojo-Mimata	2.54	Feb. 11, 1913
Sendai	Kagoshima-Higashiichiki	16.35	Oct. 11, 1913
	Higashiichiki-Kushikino	6.63	Dec. 15, 1913
Kamiiso (Light Rly.)	Goryokaku-Kamiiso	5.35	Sept. 15, 1913
Kushiro	Takikawa-Shimofurano	35.63	Nov. 10, 1913
Total		**218.68**	

(3) LINES UNDER CONSTRUCTION.

The Lines under construction at the end of the year under review are as follows:—

(a) Work in Progress.

Line	Section	Mileage	Prospective date of completion
		m. ch.	
Sendai	Kushikino-Sendai	7.33	Jan. 1914
Miyazaki	Mimata-Yamanokuchi	4.03	April 1914
	Yamanokuchi-Aoidake	4.29	Oct. 1915
	Kiyodake-Miyazaki	4.69	May 1914
Saiki	Oita-Kozaki	11.58	April 1914
	Kozaki-Saiki	30.22	June 1915
Inukai (Light Rly.)	Oita-Nakahanda	7.24	June 1915
Miyaji (Light Rly.)	Kumamoto-Higoötsu	13.77	June 1914
Hamada	Oda-Nima	17.76	Nov. 1915
Taira	Koriyama-Miharu	7.32	Aug. 1914
	Miharu-Onoshinmachi	20.70	Feb. 1915
	Kawamae-Ogawago	9.74	1916–7
	Ogawago-Taira	6.33	Feb. 1915
Murakami	Shibata-Nakajo	8.08	June 1914
	Nakajo-Murakami	12.21	Nov. 1914
Gan-Etsu	Nozawa-Tsukawa	18.57	Oct. 1914

(a) Work in Progress.—*Continued.*

Line	Section	Mileage	Prospective date of completion
		m. ch.	
Shinjo	Iwadeyama-Kawatabi	8.62	April 1914
	Kawatabi-Narugo	5.77	April 1915
	Semi-Shinjo	13.03	July 1914
	Furukuchi-Kiyokawa	8.59	June 1914
	Kiyokawa-Amarume	7.40	Aug. 1914
	Amarume-Sakata	7.56	Dec. 1914
	Sakata Goods Branch	1.53	March 1915
Hojo	Kisarazu-Kazusaminato	14.68	Dec. 1914
Tsuwano	Niho-Shinonome	3.58	June 1916
Soya	Otoineppu-Shotombetsu	9.58	Nov. 1914
Yubetsu (Light Rly.)	Rubeshibe-Shimoikutahara	18.00	Oct. 1914
Manji (Light Rly.)	Shibun-Manji Colliery	14.48	Nov. 1914
Funakawa (Light Rly.)	Futada-Wakimoto	5.22	Nov. 1914
Nagai (Light Rly.)	Nashigo-Nagai	7.11	Oct. 1914
Total		**312.22**	

(b) Work not yet Started.

Line	Section	Mileage
		m. ch.
Miyazaki	Aoidake-Kiyodake	14.62
Inukai (Light Rly.)	Nakahanda-Inukai	5.54
Miyaji (Light Rly.)	Higoötsu-Miyaji	21.03
Hamada	Nima-Hamada	29.51
Taira	Onoshinmachi-Kawamae	8.85
Hojo	Kazusaminato-Hojo	18.68
Tsuwano	Yamaguchi-Niho	6.20
do.	Shinonome-Masuda	39.60
Soya	Shotombetsu-Wakkanai	78.60
Yubetsu (Light Rly.)	Shimoikutahara-Shimoyubetsu	17.77
Tadotsu	Kannonji-Kawanoe	10.37
Funakawa (Light Rly.)	Wakimoto-Funakawa	4.44
Shinjo	Narugo-Semi	15.14
Obama	Tsuruga-Shinmaizuru	50.60
Boso	Funabashi-Sakura	14.43
Hagi	Masuda-Hagi	38.20
Masuda	Hamada-Masuda	25.18
Nemuro	Kushiro-Nemuro	89.42
Rumoi	Moseushi-Tsukushi	3.47
Total		**492.25**

CHAPTER II.

TRAFFIC.

Resume of the Results of Traffic during the Year under Review.

The average mileage of lines worked during the year under review was 5,298 miles for passenger traffic and 5,344.3 miles for goods traffic, while the total number of passengers carried one mile and the aggregate weight of goods hauled one mile were 3,690,964,619 and 3,053,852,638 tons, respectively. The coaching receipts amounted to 55,975,342 yen and the goods wagon receipts to 53,368,932 yen, making a total of 109,344,274 yen.

These figures are divided among the different Divisions as follows :—

	Item					
	Average passenger traffic mileage	No. of pass. carried one mile	Coaching receipts	Average goods traffic mileage	Weight of goods hauled one mile	Goods wagon receipts
			yen		*ton*	*yen*
Tokyo Division	2,082.6	1,535,157,630	23,329,777	2,089.9	1,345,018,449	21,969,288
Kobe Division	1,729.4	1,617,458,501	24,156,666	1,740.1	910,611,956	15,418,452
Kyushu Division	615.8	363,285,681	5,778,786	644.1	448,092,269	9,874,795
Hokkaido Division	870.2	175,062,807	2,710,113	870.2	350,129,973	6,106,397

Compared with the corresponding figures for the preceding year, the average mileage worked for passenger traffic increased by 213.8 miles or 4.2 per cent. and that for the goods by 218.2 miles or 4.3 per cent., the increase being accounted for by the extension of the Gan-Etsu, the Shin-Etsu, the Sobu, the Sanuki, the Tokushima, the San-in, the Miyazaki, the Kushiro line and the Moka light railway line on one hand and on the other the opening of the Sendai, the Riku-U, the Sakata line and the Nagai and Funakawa light railway lines as well as the opening of through service on the Hokuroku line and the lease of the Komatsushima light railway and the Ashio railway line. The number of passengers carried one mile increased by 64,648,120 or 1.8 per cent., and the weight of goods hauled one mile by 362,388,464 tons or 3.5 per cent., while the passenger receipts showed a gain of 1,669,329 yen or 3.1 per cent., the goods receipts of 3,991,259 yen or 8.1 per cent., and the total of 5,660,588 yen or 5.5 per cent. over the preceding year.

The tourist season of April, save for a spell of rainy storms at intervals, was generally favoured by propitious weather throughout the country, and induced no insignificant volume of tourist traffic, but failed to

bring about a general quickening of the business owing to party excursions and religious festivals being, as a rule, omitted out of deference to the Imperial mourning for the demise of the Emperor Meiji. It is true that the opening of through communications on the Hokuroku line induced the people in the northern districts to make pleasure trips to Nagano, Nikko and other tourist points in the south and called for the running of special trains on that line, but taken altogether, the returns of the season were far from satisfactory. In May and June the service fared equally dull, though a fair number of party passengers were returned as a result of the revision in the Transport of Party Passengers Rules, while on the other hand the Colonial Exhibition at Osaka served to attract a lot of visitors from the neighbouring districts. Toward the end of July, however, the lines were enlivened by visitors to the Momoyama Mausoleum where the anniversary of the Emperor Meiji was celebrated. With the expiry of the depressing period of the Imperial mourning, the adverse tendency was turned, and there was noticed an enormous exodus from the cities to summer resorts in the mountains and at the sea-side, while the working of special passenger trains and other devises were made for inducing travellers on each occasion of the year's celebrations in various parts of the country. The result was that the earnings for August and September recorded the highest level of the year, realising a gain of about 840,000 yen over the corresponding period of the preceding year. In autumn the Yokohama and the Toyama Competitive Exhibitions served an occasion of lively traffic on the lines concerned, especially the latter, in which 9 prefectures took part, proved highly successful and attracted an enormous number of visitors, single or in party, from the neighbouring districts. Then, again, no small portion of the visitors made a round trip to Nagano and Nikko on their way home, and did something to enliven the business on the Hokuroku and the Shin-Etsu and other lines. About this time the train service was deranged by washaways on the Tokaido, the North Eastern, the Shin-Etsu and the Hokuroku line, but the damage sustained was relatively slight, and was restored with promptitude without occasioning serious paralysis of communications. The inclement weather at the time of rice-sprout planting resulted in the disastrous failure of the crop in the north eastern part of the Main Island and the Island of Hokkaido, and imparted very untoward influence to the traffic business in these districts. The slump was too great to be made good by the sectional activity brought about by the opening of the Horses' Fairs at Obihiro and Yakumo and the festival of the Sapporo Shrine held in connection with the removal of its site.

In October the railway service suffered another derangement wrought by heavy downpour in which were involved the Kansai, Hokuroku, Boso and San-in lines. The damage was particularly serious on the Kansai line where traffic on the Seki-Toge section was tied up practically for a fortnight. On the other hand, a very prosperous business was realised in Kyushu,—the opening of the Sendai line, the 8th National Products Exhibition at Kokura and the Raw Silk Competitive Fair at Oita combining with the prolific harvest of rice to induce a large number of travellers from the farming districts.

With the advent of autumnal holiday-making season, a general quickening of business was experienced, and round trip trains were run at frequent intervals for the conveyance of excursionists bound for Nikko, Kiso and other places noted for the beauty of scarlet-tinged maple leaves as well as for the benefit of picknickers for mushroom-gathering and students on school excursions. The business was further enlivened by the active transport of new recruits and time-expired soldiers as well as their relatives and acquaintances who accompanied them to and from the sites of the barracks. Then, the ceremony of launching the battle-cruiser "Haruna" at Kobe served an occasion of lively traffic on the lines concerned. The New Year season saw a large influx of pious visitors to Shinto Shrines and Buddhist temples. Train service in Hokuroku districts was comparatively free from damage from snowdrift, as the record of precipitation was exceptionally low this year, but in Kyushu the disastrous volcanic eruption on Sakurajima Isle, Kagoshima prefecture, occasioned the suspension for a few days of train running in the vicinity of the scene of the disaster. In March the shock of severe earthquakes was experienced in Akita prefecture, which went far to aggravate the tribulations suffered by the famine-stricken people in the districts. The closing months of the year were, however, marked by favourable traffic returns due to party pilgrims on a visit to the Shrine of Ise as well as to Okayama where the mass meeting of the followers of the Kurozumi sect was held. Lastly, the Taisho Exhibition which was opened at Ueno, Tokyo, in March proved a success and began to bring about an enormous influx of visitors from all parts of the Empire.

The number of passengers per open mile worked out to 696,671 and the earnings per open mile to 10,561 yen, a decrease against the preceding year of 16,581 and 116 yen, respectively. The diminution may be accounted for by the opening of new lines, apart from the fact that the record of prosperity in the preceding year was exceptional. Then the average mileage of journey per passengers also decreased by 1.6 miles as compared with the preceding year, the decrease indicating that the effects of increased passengers of long distance travel were more than neutralized by the factor provided by the shorter route made available through the opening of through communications on the Hokuroku line. The earnings per passenger worked out to .31 yen, the same as in the preceding year. It may be noted that, though there was an appreciable decrease in the average mileage of journey per passenger, this was not accompanied by a corresponding diminution of the average earnings per passenger. The explanation is that the preceding returns under this item figured up exceptionally low on account of the large sale of cheap party passenger tickets last year.

Adverting next to goods traffic, the year opened with the brisk movement of general commodities. With the opening of through service on the Hokuroku line, which effected a complete renovation in the traffic route in connection with the Shin-Etsu line, goods railed on that line began to swell to enormous volume, and, with the wholesale conveyance of troops which happened at that time, operated to tax the capacity of the new line so heavily that it was found impossible more than once to fulfill all the demands made upon wagon service. The fertilizing season which followed, saw the active delivery of manures of all descriptions. The conveyance of raw cocoon was carried on without a hitch, while rice was rather inactive in delivery owing to the depressed tone of market. In summer, however, which is a season of general stagnation as regards this traffic, the record showed no noteworthy diminution except in August. The lines serving Kobe, Onohama, Yokohama, Yokkaichi, and Akibahara were especially enlivened by the heavy transport of foreign rice billed inland, while, on the other hand, the restoration of peace and order in China gave an impetus to the exportation of cotton yarns, cotton tissue and other commodities.

Toward the end of August, owing to the visit of hurricanes, traffic was tied up at places in Hokkaido and the north eastern part of the Main Island, paralysing the transport of rice, coal, timber and stone, but the utmost efforts were made to cope with the situation, so that the congestion could be completely disposed of

by the end of November. Taken altogether, the prosperous conditions of the autumnal crop and the steady rise of the price encouraged the busy shipment of the cereals, while the fertilizing season of autumn witnessed the very busy transport of manures of all descriptions. It is true that crop failure in the Hokkaido and the North Eastern Districts tended to depress the tone of market to a certain extent, but, on the whole, the season maintained a reassuring show on account of an appreciable amount of relief articles booked for the famine-stricken districts under 50 per cent. discount rates, the brisk delivery of petroleum occasioned by the sudden appreciation of the price, the considerable increase in the amount of coal output, the heavy booking of fish, salt and fresh, from the coasts of the Japan Sea which was generally favoured with a bounteous catch. In the districts west of the Tokaido line and Island of Kyushu, the successful harvest helped to bring about a general quickening of traffic in coal, rice, timber aud other commodities, and this notwithstanding that the train service was temporarily disrupted by floods at places on the Kansai and other lines. The wagon ferry service between Shimonoseki and Moji showed very satisfactory results, the number of vehicles ferried across the Strait realising an increase of more than 30 per cent. over the highest level recorded in the preceding year. It is to be noted that the lines in Hokkaido and other northern localities suffered but little this year from the damage of the showfall. Despite the blow given to the service by the disastrous eruption of Sakurajima Isle and earthquakes experienced in Akita prefecture, the lines were generally busy with the transport of commodities for summer consumption. Toward the end of the fiscal year, the traffic grew in activity, coal, imported rice, timber, stone, and petroleum being shipped for the market on an immense scale, while in Hokkaido an exceptionally large amount of coal and timber was put on rails in view of the expiration of the period of enforced discount freight approaching.

In reviewing, then, the general movement of some of the more important commodities, the delivery of coal in Hokkaido maintained a very favourable show throughout the year, as it met with no such natural calamities as eruption or fires which last year injuriously affected mining business at several collieries in the Island. The total weight of the traffic reached colossal figures of 1,800,000 tons, an increase of 300,000 tons or 20 per cent. over the record of the preceding year. The shipment of timber, too, was carried on without a hitch, returning a gain of 100,000 tons as compared with the preceding account. Rice produce in the North-Eastern Districts which was fairly active in delivery at the beginning of the year, suffered a sudden slump owing to the crop failure, while foreign rice imported into the Island for relief purposes swelled to considerable volume. Timber, too, showed signs of activity in the opening months, but subsquently the shipment began to stagnate as a result of the general postponement of various Government undertakings as well as the depression of timber market. It is to be noted at the same time that rice cereals, fuel, charcoal and other commodities conveyed under 50 per cent. discount freight in the interest of famine-stricken people in the Hokkaido and the North-Eastern Districts amounted, since its inception in November, to 225,000 tons in the Tokyo Division, representing 368,000 yen in freight, and 52,000 tons with 47,000 yen in the Hokkaido Division. As regards traffic in Joban coal, the extraction was substantially diminished owing to the damage done by the gush of water at the Mitsuboshi colliery in May, but with the improvement of the market the delivery made steady increase, the booking of the year aggregating approximately 1,460,000 tons or an increase of 200,000 tons against the preceding year. The delivery of fertilizers, too, continued in activity. Notably, the bean refuse which recently began to increase in demand, recorded a gain of 20,000 tons over the previous account in the amount of shipment despatched from Sumidagawa station alone. While Echigo rice failed to come up to the level of the preceding year's record, petroleum produced in the province was unusually active, realising a gain of 130,000 tons as compared with the preceding year. Rice traffic in Hokuroku Districts which was exclusively outbound in usual years, was fairly active this year in both in-and-out bound transport, no small amount of foreign rice being imported into the districts as substitute for the local produce which was shipped out of the districts. Taken altogether, however, the year was not very prosperous as regards this particular traffic, for, apart from the results of poor harvest, the considerable part of the produce was drawn to the sea-route from Fushiki to Hokkaido. The movement of timber and stone on the Tokaido and the Central line suffered no noteworthy diminution, while minerals at Tenryugawa and Hamamatsu showed an improvement of 20 per cent. upon the previous account, respectively. Porcelain and crockery in Nagoya and neighbourhood were shipped this year to the amount of 40,000 tons, respectively. *Sake*, Japanese liquor, despatched from Sumiyoshi and Nishinomiya aggregated about 40,000 tons. Thanks to the speedy restoration of peace in China, the export of cotton yarn and tissue recovered from the stagnation and grew steadily in volume, the returns of the year comparing well with those of the preceding years. Foreign rice called for by the crop failure in some districts doubled the figures of the previous year, a substantial volume of the traffic being railed inland from Kobe, Onohama and Yokkaichi. Equally brisk was the transport of bean refuse from Wadamisaki and artificial manure from Osaka, each recording a gain over the preceding year of 10,000 tons. The despatch of matting aggregated 32,000 tons, an increase of about 20 per cent. as compared with the previous account, while as regards the despatch of salt, Itozaki on the San-yo line stood first with 32,000 tons followed by Uno and Kashima, the returns of each of these points showing an improvement over the previous account to more or less extent. No variation was noticed in the despatch of raw fish from Shimonoseki which this year recorded an aggregate volume of 49,000 tons, while Chinese citron from the same district was delivered for Osaka and Tokyo in an appreciable amount. Thanks to the favourable market maintained throughout the year, a phenomenal swell was noticed in the traffic in Kyushu coal, which recorded a heavy booking of 10,520,000 tons in total or an increase of no less than one million tons as compared with the preceding year. Piles were despached to the amount of 286,000 tons in total or a gain of 40,000 tons over the previous account. Rice produce in the Island, too, which was highly bounteous this year recorded reassuring figures of 260,000 tons, including foreign rice, while manures aggregated 160,000 tons. Lastly Nagasaki was noticeably busy with the despatch of raw fish.

The favourable condition of goods traffic as described above operated to bring up the average weight of goods per open mile to 571,422 tons or an increase of 46,000 tons over the figures of the preceding year, realising 9,986 yen of earnings per mile, which means a gain of 353 yen as compared with the favourable returns of the previous year. Notwithstanding the route was shortened for portion of the goods through the opening of through service on the Hokuroku line, the average mileage per ton worked out to 84 miles or a decrease of 1.3 miles against the preceding year, the diminution being traceable to the swell in the volume of goods of long distance haul consequent upon the gradual extension of markets and the increase in the utilization of transport service. On the other hand,

the average earnings per ton worked out to 1.46 yen and the average earnings per ton per mile to .0174 yen, being a decrease of .05 yen and .0009 yen, respectively. This diminution in the average earnings, notwithstanding the increased average mileage, may be accounted for by the revised goods tariff having operated to reduce the returns for the full year, while in the preceding year the corresponding figures were only partially affected by the reduction which became operative from October 1st.

(1) Train Mileage.

Item \ Jurisdiction	Tokyo Division	Kobe Division	Kyushu Division	Hokkaido Division	Total	Inc. or dec. (△) against preceding year
	mile	*mile*	*mile*	*mile*	*mile*	*mile*
Mileage worked	2,131.2	1,781.1	665.9	894.5	**5,472.7**	255.7
Average mileage worked during the year	2,093.7	1,740.1	644.1	870.2	**5,348.1**	218.2
Passenger train mileage	9,050,862	9,944,608	2,168,524	662,837	**21,826,831**	1,977,477
Goods train mileage	10,321,984	6,698,512	3,542,852	2,245,743	**22,809,091**	1,904,401
Mixed train mileage	4,807,277	3,507,598	1,730,703	2,183,610	**12,229,188**	513,109
Electric train mileage	495,113	—	—	—	**495,113**	26,422
Steam motor car mileage	—	26,818	15,762	—	**42,580**	13,680
Total	24,675,236	20,177,536	2,457,841	5,092,190	**57,402,803**	3,408,871
Average train mileage per day	67,603	55,281	20,432	13,951	**157,268**	9,339
Average No. of trains per day	32.3	31.8	31.7	16.0	**29.4**	.6

N.B.—The mileage travelled by electric trams and steam motor cars is computed on the basis of 10 cars=1 train.

(2) Vehicle Mileage.

Item \ Jurisdiction	Tokyo Division	Kobe Division	Kyushu Division	Hokkaido Division	Total	Inc. or dec. (△) against preceding year
	mile	*mile*	*mile*	*mile*	*mile*	*mile*
Pass. carriages:—						
Vehicle mileage (passenger train)	104,406,121	125,335,730	23,263,504	6,685,081	**259,690,436**	23,526,032
" " (goods train)	29,891,441	24,940,099	10,070,484	11,918,931	**76,820,955**	△ 4,396,296
" " (mixed train)	1,545,801	1,258,227	360,580	171,088	**3,335,696**	429,420
Electric tram mileage	4,951,090	—	—	—	**4,951,090**	264,176
Steam motor car mileage	—	268,176	157,462	—	**425,638**	136,848
Total	140,794,453	151,802,232	33,852,030	18,775,100	**345,223,815**	19,960,180
Goods wagons:—						
Vehicle mileage (goods train)	270,087,224	174,308,221	90,495,702	62,284,108	**597,175,255**	68,605,045
" " (passenger train)	45,843,283	24,591,462	13,296,492	28,021,433	**111,752,670**	△ 766,639
" " (mixed train)	6,563,802	18,748,147	2,733,717	10,806	**28,056,472**	6,153,639
Total	322,494,309	217,647,830	106,525,911	90,316,347	**736,984,397**	73,992,045
Grand Total	463,288,762	369,450,062	140,377,941	109,091,447	**1,082,208,212**	93,952,225

(3) Receipts from Traffic.

Item \ Jurisdiction	Tokyo Division	Kobe Division	Kyushu Division	Hokkaido Division	Total	Inc. or dec. (△) against preceding year
	yen	*yen*	*yen*	*yen*	*yen*	*yen*
Traffic receipts: Coaching	23,329,777	24,156,666	5,778,786	2,710,113	**55,975,342**	1,669,329
Traffic receipts: Wagon	21,969,288	15,418,452	9,874,795	6,106,397	**53,368,932**	3,991,259
Traffic receipts: Total	45,299,065	39,575,118	15,653,581	8,816,510	**109,344,274**	5,660,588
Average receipts per mile	21,635.89	22,743.01	24,303.02	10,131.59	**20,445.44**	233.80
Average receipts per day per mile	59.28	62.31	66.58	27.76	**56.01**	.64
Steamship receipts	—	1,537,297	—	703,545	**2,240,842**	100,004
Total	45,299,065	41,112,415	15,653,581	9,520,055	**111,585,116**	5,760,592
Average receipts per day	124,107	112,637	42,887	26,082	**305,713**	15,783

(4) Coaching Traffic.

Item \ Jurisdiction	Tokyo Division	Kobe Division	Kyushu Division	Hokkaido Division	Total	Inc. or dec. (△) against preceding year
Mileage worked	2,120.1	1,768,1	638.1	894.5	**5,420.8**	249.9
Average mileage worked	2,082.6	1,729.4	615.8	870.2	**5,298.0**	213.8
Train mileage	11,816,924	11,447,569	3,155,595	1,596,008	**28,016,096**	1,252,307
Vehicle mileage	140,794,453	151,802,232	33,852,030	18,775,100	**345,223,815**	19,960,180
Average No. of cars coupled per train	11.9	13.3	10.7	11.8	**12.3**	.1
No. of passengers carried: 1st class	257,921	182,085	28,079	3,545	**426,641**	43,596
No. of passengers carried: 2nd class	3,629,102	3,058,613	895,379	258,292	**7,436,144**	22,109
No. of passengers carried: 3rd class	74,826,530	64,654,621	17,078,449	5,550,100	**159,910,358**	7,082,893
No. of passengers carried: Total	78,713,553	67,895,319	18,001,907	5,811,937	**167,773,143**	7,061,406

(4) Coaching Traffic.—*Continued.*

Item	Jurisdiction	Tokyo Division	Kobe Division	Kyushu Division	Hokkaido Division	Total	Inc. or dec.(△) against preceding year
Average No. of passengers per day		215,654	186,015	49,320	15,923	**459,652**	19,346
No. of passengers carried one mile	1st class	13,903,348	14,925,681	1,883,415	511,776	**31,224,220**	△ 2,315,039
	2nd class	156,921,827	171,459,250	35,993,228	15,226,384	**379,600,689**	11,693,696
	3rd class	1,364,332,455	1,431,073,570	325,409,038	159,324,647	**3,280,139,710**	55,270,063
	Total	1,535,157,630	1,617,458,501	363,285,681	175,062,807	**3,690,964,619**	64,648,120
Average mileage of journey per passenger	1st class	53.9	82.0	67.1	144.4	**73.2**	1.9
	2nd class	43.2	56.1	40.2	59.0	**51.0**	1.4
	3rd class	18.2	22.1	19.1	28.7	**20.5**	△ .6
	Total	19.5	23.8	20.2	30.1	**22.0**	△ .6
Average No. of passengers per mile worked		737,135	935,271	589,941	201,175	**696,671**	▽ 16,581
Average No. of passengers per day per mile worked		2,020	2,562	1,616	551	**1,909**	△ 45
Average No. of passengers per train mile		129.9	141.3	115.1	109.7	**1,317**	△ 38
Average No. of passengers per vehicle mile		10.9	10.7	10.7	9.3	**107**	△ .4
Coaching receipts (yen)	Passenger earnings 1st class	474,457	495,208	59,395	18,879	**1,047,939**	△ 67,436
	Passenger earnings 2nd class	3,059,506	3,217,853	727,790	306,816	**7,311,965**	261,398
	Passenger earnings 3rd class	17,742,795	18,454,730	4,607,611	2,198,628	**43,003,764**	1,176,111
	Passenger earnings Total	21,276,758	22,167,791	5,394,796	2,524,323	**51,363,668**	1,370,073
	Parcels and luggage	1,459,841	1,395,235	271,524	92,668	**3,219,268**	252,404
	Postal matter	431,517	482,003	82,592	67,680	**1,063,792**	12,317
	Platform tickets	111,301	70,344	20,111	18,946	**220,702**	21,097
	Sundry receipts	50,360	41,293	9,763	6,496	**107,912**	13,438
	Total	23,329,777	24,156,666	5,778,786	2,710,113	**55,975,342**	1,669,329
Average coaching receipts per day (yen)		63,917	66,183	15,832	7,425	**153,357**	4,573
Average coaching receipts per mile worked (yen)		11.202	13,968	9,384	3,114	**10,565**	△ .116
Average receipts per day per mile worked (yen)		30.69	38.27	25.71	8.53	**28.95**	△ .31
Average coaching receipts per train mile (yen)		1.97	2.11	1.83	1.70	**2.00**	△ .03
Average coaching receipts per vehicle mile (yen)		.166	.159	.171	.144	**.162**	△ .005
Average coaching rec'ts per vehicle per day (yen)		—	—	17.26	15.95	**18.61**	△ .71
Average earnings per passenger (yen)	1st class	1.84	2.72	2.12	5.33	**2.46**	.09
	2nd class	.84	1.05	.81	1.19	**.98**	.03
	3rd class	.24	.29	.27	.40	**.27**	0
	Total	.27	.33	.30	.43	**.31**	0
Average earnings per passenger per mile (yen)	1st class	.0341	.0332	.0315	.0369	**.0336**	.0003
	2nd class	.0195	.0188	.0202	.0202	**.0193**	.0001
	3rd class	.0130	.0129	.0142	.0138	**.0131**	.0001
	Total	.0139	.0137	.0149	.0144	**.0139**	.0001
Tonnage of parcels and luggage (exclusive of postal matter)		56,387	53,034	10,146	3,253	**122,820**	13,340
Average earnings per ton of parcels and luggage (yen)		25.89	26.31	26.76	28.49	**26.21**	△ .89

(5) Goods Taffic.

Item	Jurisdiction	Tokyo Division	Kobe Division	Kyushu Division	Hokkaido Division	Total	Inc. or dec.(△) against preceding year
Mileage worked		2,127.4	1,781.1	665.9	894.5	**5,468.9**	255.7
Average mileage worked		2,089.9	1,740.1	644.1	870.2	**5,344.3**	218.2
Train mileage		12,858,312	8,729,967	4,302,246	3,496,182	**29,386,707**	2,156,564
Vehicle mileage		322,494,309	217,647,830	106,525,911	90,316,347	**736,984,397**	73,992,045
Mileage run by empty vehicles		70,791,460	37,255,423	37,018,736	33,585,638	**178,651,257**	19,285,093
Mileage run by empty vehicles per 100 vehicle miles		22	17	35	37	**24**	0
Average number of vehicles coupled per train		25.1	24.9	24.8	25.8	**25.1**	.8
Tonnage of goods hauled	Express consignment	15,805	20,852	1,392	668	**24,353**	▽ 999
	Ordinary ,,	1,451,293	1,454,657	383,567	290,293	**3,316,953**	318,233
	Carload ,,	10,699,214	7,771,803	12,427,155	4,102,294	**33,007,056**	3,493,783
	Total	12,166,312	9,247,312	12,812,114	4,393,255	**36,348,362**	3,811,017
Average tonnage of goods hauled per day		33,332	25,335	35,102	12,036	**99,585**	10,442
Tonnage of goods hauled one mile	Express consignment	2,534,706	3,756,705	144,741	96,226	**6,532,378**	△ 431,254
	Ordinary ,,	130,911,629	140,923,154	20,764,756	20,624,238	**313,223,777**	29,977,660
	Carload ,,	1,211,572,105	765,932,097	427,182,772	329,409,509	**2,734,096,483**	332,842,058
	Total	1,345,018,440	910,611,956	448,092,269	350,129,973	**3,053,852,638**	362,388,464
Average mileage of goods per ton	Express consignment	160.4	180.2	104.0	144.1	**268.2**	△ 6.5
	Ordinary ,,	90.2	96.9	54.1	71.0	**94.4**	△ .1
	Carload ,,	113.2	98.6	34.4	80.3	**82.8**	1.4
	Total	110.6	98.5	35.0	79.7	**84.0**	1.3
Average tonnage of goods per mile worked		643,580	523,310	695,687	402,356	**571,422**	46,371
Average tonnage of goods per day per mile		1,763	1,434	1,906	1,102	**1,566**	127
Average tonnage of goods per train mile		104.6	104.3	104.2	100.1	**103.9**	5.1
Average tonnage of goods per vehicle mile		4.2	4.2	4.2	3.9	**4.1**	.0
Average tonnage of goods per loaded vehicle mile		5.3	5.0	6.4	6.2	**5.5**	.2
Goods wagon receipts (yen)	Goods earnings Express consignment	216,254	324,901	9,601	11,008	**561,764**	△ 41,694
	Goods earnings Ordinary ,,	5,022,539	4,381,060	996,113	793,853	**11,193,565**	3,870,669
	Goods earnings Carload ,,	16,699,026	10,632,320	8,790,132	5,155,909	**41,277,387**	
	Goods earnings Total	21,937,819	15,338,281	9,795,846	5,960,770	**53,032,716**	3,828,975
	Sundry receipts	31,469	80,171	78,949	145,627	**336,216**	162,284
	Grand total	21,969,288	15,418,452	9,874,795	6,106,397	**53,368,932**	3,991,259

(5) Goods Traffic.—*Continued.*

Item	Jurisdiction	Tokyo Division	Kobe Division	Kyushu Division	Hokkaido Division	Total	Inc. or dec. (△) against preceding year
Average goods wagon rec'ts per day (yen) ...		60,190	42,242	27,054	16,730	**146,216**	10,935
Average goods receipts per mile (yen)		10,512	8,861	15,331	7,017	**9,986**	353
Average goods wagon rec'ts per day per mile (yen)		28.80	24.28	42.00	19.23	**27.36**	.97
Average goods wagon rec'ts per train mile (yen)		1.71	1.77	2.30	1.75	**1.82**	.01
Average goods wagon rec'ts per vehicle mile(yen)		.068	.071	.093	.068	**.072**	△ .003
Average goods wagon rec'ts per loaded vehicle mile (yen)		.087	.085	.142	.108	**.096**	△ .002
Average goods wagon rec'ts per day per vehicle (yen)		—	—	—	3.16	**3.49**	.05
Average goods earnings per ton (yen)	Express consignment	13.68	15.58	6.90	16.48	**23.07**	△ .73
	Ordinary „	3.46	3.01	2.60 / .71	2.73 / 1.26	3.37 / 1.25	**1.44** △ .05
	Carload „	1.56	1.37		1.35		
	Total	1.80	1.66	.76	1.36	**146**	△ .05
Average goods earnings per ton per mile (yen)	Express consignment	.0853	.0865	.0663	.1144	**.0860**	△ .0007
	Ordinary „	.0384	.0311	.0480 / .0206	.0385 / .0157	.0357 / .0151	**.0172** △ .0009
	Carload „	.0138	.0139	.0218	.0170		
	Total	.0163	.0168	.0219	.0170	**.0174**	△ .0009

(6) Shipping Service.

Item	Jurisdiction	Kobe Division	Hokkaido Division	Total	Inc. or dec. (△) against preceding year
No. of Steamship routes		7	1	**8**	△ 3
Mileage worked		158.3	60	**218.3**	△ 29.5
Specified mileage worked		198	100	**298**	△ 350
No. of voyages...		34,718	1,755	**36,473**	420
Pass. carried	Ferry service	1,328,001	254,945	**1,582,946**	87,853
	Independent service	560,206	50,827	**611,033**	24,011
	Total	1,888,207	305,772	**2,193,979**	111,864
Cargo carried	Ferry service	502,414	109,309	**611,723**	153,888
	Independent service	11,551	43,357	**54,908**	689
	Total	513,965	152,666	**666,631**	154,571
Parcels and Luggage carried		1,127,870	276,460	**1,404,330**	107,933
Earnings from	Passengers	885,352	328,514	**1,213,866**	△ 13,702
	Cargo	533,484	341,598	**875,082**	108,336
	Parcels and luggage	52,655	12,105	**64,760**	4,460
	Postal matter	65,806	21,328	**87,134**	910
	Total	1,537,297	703,545	**2,240,842**	100,004

CHAPTER III.

TRANSPORTATION.

(1) Working of Locomotives.

Item	Jurisdiction	Tokyo Division	Kobe Division	Kyushu Division	Hokkaido Division	Total	Inc. or dec. (△) against preceding year
Locomotive mileage...		30,733,454.3	22,604,917.3	9,042,459.8	6,283,280.7	**68,664,112.1**	3,911,072
Vehicle mileage		531,811,891.0	401,767,029.9	168,382,481.7	110,791,694.6	**1,212,753,097.2**	129,087,537
Fuel consumed for running		(933,118.15)				(933,118.15)	△(2,327,241.91)
	amount (*kin*) ...	1,404,480,226	774,530,571	270,491,274	320,701,407	**2,770,203,478**	265,623,219
	value (*yen*)... ...	3,711,126.858	2,508,495.503	610,517.688	538,357.163	**7,368,497.212**	796,876.094
do. per 100 loco miles	amount (*kin*) ...	4,583	3,426	2,991	5,104	**4,040**	145
	value (*yen*)	12.075	11.097	6.752	8.568	**10.731**	.582
do. per 100 vehicle miles	amount (*kin*) ...	2,649	1,928	1,606	2,895	**2,288**	△ 39
	value (*yen*)... ...	6.978	6.244	3.626	4.859	**6.076**	.012
Oils consumed for running	amount (*sho*) ...	441,895	231,414	70,423	63,942	**807,675**	67,092
	value (*yen*)... ...	110.222	60.306	17.421	14.868	**202.817**	32,505
do. per 100 loco miles	amount (*sho*) ...	1.44	1.02	.78	1.02	**1.18**	.06
	value (*yen*)... ...	.359	.267	.193	.237	**.295**	.032
Average No. of vehicles hauled per loco		17.30	17.77	18.62	17.63	**17.66**	.92

N.B.—Parenthetical figures indicate the amount of oil dregs converted at the rate of one *sho* of oil = 5.4 *kin* of coal.

(2) Working of Vehicles.

Item / Jurisdiction	Vehicle mileage	Oils consumed		Oils consumed per 10000 vehicle miles	
		Amount	Value	Amount	Value
		sho	*yen*	*sho*	*yen*
Tokyo Division	532,573,006.0	130,121.22	21,683.996	2.44	.407
Kobe Division	401,839,825.9	108,444.64	19,875.964	2.70	.495
Kyushu Division	168,383,764.2	33,673.70	6,501.455	2.00	.386
Hokkaido Division	110,791,694.6	21,639.37	3,662.989	1.94	.331
Total	**1,213,588,290.7**	**293,878.93**	**51,724.404**	**2.42**	**.426**

(3) Working of Steam Motor Cars.

Item / Jurisdiction		Tokyo Division	Kobe Division	Total
Mileage travelled by motor cars		219,358.9	100,735.4	**320,094.3**
Fuel consumed for running	amount (*kin*)	2,889,449	899,218	**3,788,767**
	value (*yen*)	8,602.660	2,077.154	**10,679.814**
do. per 100 vehicle miles	amount (*kin*)	1,317	893	**1,183**
	value (*yen*)	3.922	2.062	**3.336**
Fuel consumed for lighting, etc.	amount (*kin*)	248,110	55,095	**303,205**
	value (*yen*)	697.727	128.976	**826.703**
Total	amount (*kin*)	3,137,559	954,313	**4,091,972**
	value (*yen*)	9,300.387	2,206.130	**11,506,517**
do. per 100 vehicle miles	amount (*kin*)	1,430	947	**1,278**
	value (*yen*)	4.240	2.190	**3.595**
Oils consumed for cylinders	amount (*sho*)	1,086.05	396.97	**1,483.02**
	value (*yen*)	370.184	138.769	**508.953**
do. per 100 vehicle miles	amount (*sho*)	.50	.39	**.46**
	value (*yen*)	.169	.138	**.159**
Oils consumed for machines	amount (*sho*)	1,291.30	584.68	**1,875.98**
	value (*yen*)	245.296	108.808	**354.104**
do. per 100 vehicle miles	amount (*sho*)	.59	.58	**.58**
	value (*yen*)	.112	.108	**.111**
Oils consumed for lighting, etc.	amount (*sho*)	428.56	207.08	**635.64**
	value (*yen*)	105.172	52.876	**158.048**
Total	amount (*sho*)	2,805.91	1,188.73	**3,994.64**
	value (*yen*)	720.652	300.453	**1,021.105**
do. per 100 vehicle miles	amount (*sho*)	1.28	1.18	**1.25**
	value (*yen*)	.329	.298	**.319**
Grand total of value (*yen*) ...		10,021.036	2,506.583	**12,527.622**
do. per 100 vehicle miles...		4.568	2.488	**3,914**
Average No. of cars coupled...		.3	—	**.2**

(4) Provisions for Train Working.

(a) Locomotives.

On the following sections were placed Mallet type 4-wheel and 6-wheel coupled tenders of heavy tractive effect designed for goods trains in order to serve as auxiliaries to goods trains, expresses, and through passenger trains running thereon :—

Kuroiso-Shirakawa section, North Eastern line.
Yamakita-Numazu and Otsu-Kyoto sections, Tokaido line.
Kameyama-Kamo section, Kansai line.
Nagano-Naoetsu section, Shin-Etsu line.

As a result of the revision in the unit for measuring vehicle capacity, unification was effected throughout the system in the regular number of vehicles to be hauled by an engine.

On the Kuroiso-Sendai and the Ichinoseki-Aomori section, North Eastern main line, were placed 6-wheel coupled tenders of heavy tractive effect for passenger trains, which, in co-operation with the engines employed for the Sendai-Ichinoseki section, were designed to materially help the Ueno-Aomori through passenger trains in making quicker time than had hitherto been scheduled.

(b) Vehicles.

Unification was effected in the term and mode of inspecting passenger carriages and goods wagons.

In order to ensure the smooth working of freight business, it was decided to regulate the repair of vehicles on the basis of certain rates, variable according to the conditions of goods traffic.

With a view to regulating the number of vehicles to be sent to workshops for repair so as to secure their best utility, it was decided to carry out the regular inspection on vehicles exclusively at the Workshops.

(c) Tetegraph Service.

In order to meet the exigencies in passenger service, arrangements were made for accepting public telegrams at any time on the part of stations which are not open to the service or whose business is confined within certain fixed hours of day.

(5) Electric Tram and Steam Motor Car Service.

Electric Tram Service.—At the end of the year under review electric tram service was in operation on the following sections :—

	mile
Gofukubashi-Ueno	19.5
Ikebukuro-Akabane	3.5
Manseibashi-Nakano	8.0
Total	**31.0**

Steam Motor Car Service.—The following sections were opened for steam motor car service during the year :—

	mile	Date of opening
Ogori-Yamaguchi	7.9	May, 1913
Yoshizuka-Sasaguri... ...	6.4	Sept., 1913
Yoshizuka-Futsukaichi ...	10.3	Sept., 1913
Nishikaratsu-Yamamoto...	6.3	do.
Yamamoto-Kishidake ...	2.6	do.
Kobukuro-Futase	1.6	Nov., 1913

The same service was suppressed on the Hanaten-Amijima section, 2.4 miles, in November, 1913.

At the end of the year under review the steam motor car service was in operation on the following sections :—

	mile
Shijonawate-Katamachi	8.2
Oji-Sakurai	13.1
Kanzaki-Sanda	22.0

	mile
Tsukaguchi-Amagasaki	2.9
Agei-Kurayoshi	2.6
Tofumachi-Kashima	3.5
Kobe-Wadamisaki	2.8
Ogori-Yamaguchi	7.9
Yoshizuka-Sasaguri	6.4
Yoshizuka-Futsukaichi	10.3
Nishikaratsu-Yamamoto	6.3
Yamamoto-Kishidake	2.6
Nogata-Nakama	6.1
Nakama-Kazuki	2.2
Nogata-Kotake	4.0
Kotake-Futase	4.7
Katsuno-Kirino	3.3
Total	**108.9**

(6) Improvements in Safety Working Arrangements.

The equipment of Tablet block instruments was practically completed on all the sections of single line working, with the exception of a few sections where train running is infrequent. During the year under review Tablet block working was established on the Uno-Takamatsu and 24 other sections. The existing conditions of safety working arrangements are given below.

During the year four sections, 101 miles in length, were newly opened for a double line working.

The duplication work over the Tenryu bridge and approaches thereto was finished, with which completion was effected for the double line working on the whole length of the Tokaido line (Shimbashi-Kobe).

It was decided to establish Tablet block working on the new lines under construction which are designed to connect with the existing lines worked under the same safety system.

The following is the summary of safety working equipment in operation at the end of the year under review:—

Item	Jurisdiction	Tokyo Division	Kobe Division	Kyushu Division	Hokkaido Division	Total
Double Line Working:—						
Duplex block instrument	Section... ...	128	105	30	20	283
	Mileage ...	315.3	296.4	56.0	59.5	724.2
Single needle block instrument ...	Section... ...	—	—	3	—	3
	Mileage ...	—	—	5.6	—	3.6
Automatic block instrument	Section... ...	Up 37 / Down 37	—	—	—	74
	Mileage ...	16.6	—	—	—	16.6
Total	Section... ...	202	105	33	20	360
	Mileage ...	331.9	296.4	59.6	56.5	744.4
Single Line Working:—						
Tablet instrument	Section... ...	425	385	144	170	1,124
	Mileage ...	1,680.8	1,349.0	519.5	823.9	4,373.2
Staff and block system used in combination	Section... ...	1	5	—	—	6
	Mileage ...	1.5	15.5	—	—	17.0
Staff system	Section... ...	33	45	36	3	117
	Mileage ...	118.9	115.2	77.5	14.2	325.8
Not provided with safety arrangements	Section... ...	6	1	16	—	23
	Mileage ...	6.6	.2	6.2	—	13.0
Total	Section... ...	465	436	196	173	1,270
	Mileage ...	1,807.8	1,479.9	603.2	838.1	4,729.0
Grand Total	Section... ...	667	541	229	193	1,630
	Mileage ...	2,139.7	1,776.3	662.8	894.6	5,473.4

(7) Accidents to Trains and Tracks.

Description	Jurisdiction	Tokyo Division	Kobe Division	Kyushu Division	Hokkaido Division	Total
Derailed ...	No. of accidents	96	75	33	61	265
	No. of locomotives	59	39	14	35	147
	No. of carriages	13	24	3	3	43
	No. of wagons	95	63	31	91	280
Collisions ...	locomotives	8	9	3	11	31
	passenger trains	10	13	2	2	27
	goods trains	13	4	1	11	29
	vehicles	10	7	12	14	43
Overturned ...	No. of accidents	17	5	14	8	44
	No. of locomotives	4	3	2	4	13
	No. of carriages	5	—	1	2	8
	No. of wagons	29	22	22	23	96
Trains uncoupled		16	12	13	53	94
Trains misguided		9	7	8	6	30
Caused by defects in vehicles	locomotives	324	174	54	139	691
	carriages	3	8	3	4	18
	wagons	11	3	—	64	78
	electric trams	3	—	—	—	3
Tracks obstructed	by natural causes	32	14	3	17	66
	by artificial causes	26	4	1	2	33
Trains obstructed	by natural causes	—	—	—	—	—
	by artificial causes	39	59	6	19	123
Vehicles overrunning		3	6	2	9	20
Fires...		124	25	5	14	168
Miscellaneous...		12	75	4	8	99
Total		756	500	164	442	1,862

(8) Accidents to Shipping.

Sinking	—
Collisions	—
Running aground	—
Touching	15
Delayed or stopped above two hours	11
Miscellaneous	18
Total	**44**

(9) Casualty Returns.

Description		Jurisdiction	Tokyo Division	Kobe Division	Kyushu Division	Hokkaido Division	Total
Passengers	Accidents	*killed*	—	26	—	7	33
		injured	75	167	12	79	333
	Negligence	*killed*	4	11	6	1	22
		injured	44	60	25	4	133
	Suicide	*killed*	—	2	1	—	3
		injured	—	—	—	—	—
	Causes unknown	*killed*	2	1	—	—	3
		injured	2	6	—	—	8
	Total	*killed*	6	40	7	8	61
		injured	121	233	37	83	474
Railway Employees	Accidents	*killed*	3	1	3	3	10
		injured	38	24	36	36	134
	Negligence	*killed*	41	24	20	4	92
		injured	407	373	129	230	1,139
	Suicide	*killed*	2	—	1	1	4
		injured	1	—	—	—	1
	Causes unknown	*killed*	1	1	—	—	2
		injured	—	—	—	—	—
	Total	*killed*	50	26	24	8	108
		injured	446	397	165	266	1,274
Others	Accidents	*killed*	—	1	—	—	1
		injured	2	9	4	1	16
	Negligence	*killed*	113	133	75	50	371
		injured	186	145	74	74	479
	Suicide	*killed*	736	446	109	42	1,333
		injured	58	33	12	3	106
	Causes unknown	*killed*	3	11	10	5	29
		injured	3	9	—	1	13
	Total	*killed*	852	591	194	97	1,734
		injured	249	196	90	79	614
Grand total		*killed*	908	657	225	113	1,903
		injured	816	826	292	428	2,362

(10) Description of the More Serious Accidents.

The following are the particulars of the more serious accidents that took place during the year under review :—

On May 5th, 1913 No. 701 down passenger train was entering Matsukawa station, North Eastern main line, at 4.44 a.m. or 22 minutes behind time, when its vacuum brake which had been found out of order for some time, stopped its working, the hand of its chamber dropping to 0 inch all of a sudden. The driver, in co-operation with the fireman, applied the hand brakes, reversed the lever, and took every step to recede, but failed to prevent the train proceeding into the relief line where it struck a locomotive standing in await and broke through the buffer stop. The two engines and 5 carriages were either derailed or smashed, and 17 passengers and 2 railway servants got injured by the shock caused by the collision. A relief locomotive was sent from Fukushima station, the train being re-started after a delay of two hours and a half.

On July 25th, 1913 at 0.22 a.m. No. 836 up goods train arrived at Takahama station, Joban line, and the driver and fireman proceeded to attend to the inspection of the train. The assistant station-master on duty ordered his hands to their respective posts, and making sure of 'line clear' at the down signal and the point-indicator for No. 801 down express passenger train which was to run through the station shortly, was standing on the platform in readiness for its entrance. The driver of the incoming down train, who sighted a tri-colour of orange, green and white at the distant signal, was speeding with caution, sounding warning whistles, but, further on, noticing 'clear' at the home signal and the point-indicator, he allowed his train to proceed at unreduced speed until he drew near the point when he found the point suddenly thrown up into 'danger.' The fact was, that the pointman in charge, having mistaken the whistles for a warning against the wrong position of his point, tried to reset it, but, unable to attain his object, took it for granted that there was something wrong with the interlocking arrangements, and, in this belief, he unfastened the point levers and managed by sheer force to put over the point for the track upon which the goods train was standing. The driver of the incoming train, aware of the perilous situation, resumed his whistling, and made desperate efforts to bring his train to halt, but it was too late to prevent his engine fouling the stationary

goods train. The two locomotives were thrown off the metals, and 2 carriages and 5 wagons either jumped off the rails or otherwise sustained serious damage, inflicting injury upon 17 passengers and 3 servants. Relief trains were sent from Mito and Tsuchiura stations, and clearance work was promptly attended to, while No. 801 train resumed its journey after the lapse of 3 hours and a half, the line being reopened at 10 a.m.

On October 3rd, 1913 at 5.18 p.m. when No. 530 down passenger train was passing on a falling gradient of 1 in 100 near 55 miles 30 chains from Tsuruga on the Hosorogi-Daishoji section, Hokuroku line, it found that the track about 4 chains ahead was buried under debris produced by the sudden collapse of the cut slope on the right side as a result of the heavy downpour. The driver took prompt steps to stop, but the space allowed was too short to prevent his locomotive from mounting the heap. The consequence was that the locomotive was buried up to the deck, one carriage smashed out of shape, and two slightly damaged. One passenger was killed on the spot and one sustained fatal injury and succumed under treatment, while 8 passengers and 4 servants were injured, two of the latter expiring in hospital. Temporary platforms were improvised on the scene of accident and the connection by transhipment was opened next day, through service being resumed at 11.55 a.m. on 6th.

On October 17th, 1913 when No. 43 special down goods train entered Higashiiwase station, Hokuroku line, at 4.23 a.m. or 5 minutes later than due, the driver failed to control its speed and allowed it to outrun the stopping place until it came to rest about 78 feet beyond the facing point. The driver at once began to bring back his train about 50 feet, when at about 27 feet from the said point it was run into by No. 700 special party passenger train which had been incoming in defiance of 'danger' at the home signal. In consequence, No. 43 train was pushed back about 65 feet, with the result that the third wagon derailed, the 4th and the rest following, 23 in all, came to a stop after receding about 800 feet, while No. 700 train was pushed forward about 60 feet, the locomotive, the first, the 2nd and the 9th carriages being wrecked and the 3rd to the 8th carriages tumbled down. 24 passengers were killed on the spot, two fatally injured, while 104 passengers and one railway servant also got wounded. Three relief trains with medical corps were at once despatched from Toyama station, and the serious cases taken back to the town to be put into hospital, while the others were sent back to their respective destinations in No. 702 train. The wreckage was promptly cleared and the train service was resumed at 0.20 p.m.

On August 28th, 1913 No. 4 express passenger train which left Mena station, Hakodate line, at 1 a.m. or 54 minutes behind time, was running with due precaution in view of the inclemency of weather. As it was passing along the curve of 13 chains radius on a rising gradient of 1 in 50 near 92 miles 50 chains from Hakodate, the locomotive ploughed its way deep into the debris produced by the collapse of the hill side for a matter of about 30 *tsubo*. It was at 1.25 a.m. As it was found that the permanent way ahead was submerged, the roadbed swept away and the cuts breached at places, a 'leading' conductor was sent in order to make a survey of the line and to seek relief from the station in advance. In the mean time, the storm grew in violence and it was decided that the train should seek shelter at Mena station. Thereupon, at 2.25 a.m. the train began to run back ward at reduced speed with the brakes 'full on,' the 'rear' conductor keeping a sharp look-out and making the necessary signs for backing. At that time the foundations of the bridge had been seriously undermined by the violent rush of the stream as a result of its opening being choked by floating trees and debris. As the train began to pass over it, the bridge suddenly collapsed under the load. The 2nd passenger carriage was knocked out of position and tumbled down into the water, while the bogie postal, luggage and brake van which had already passed it, was thrown out of the rails and tumbled down on to its side, and the 3rd sleeping carriage tilted. 6 passengers and one railway servant were killed on the spot, 63 passengers, 2 caterers and 2 railway servants injured. Medical corps were sent for to Kuromatsunai, Guchian and Otaru station, and the victims, after receiving first-aid treatment, were taken into Mena station. Transhipment was established on 29th and through service resumed in the afternoon of 30th.

In August and October, 1913 abnormal downpour accompanying the visit of hurricanes caused the freshet of rivers in various districts, and in consequence the lines were submerged, embankments and bridges damaged and the roadbed washed away at places, involving the paralysis of train services on different sections throughout the system. To give a resume of the damages, the train service on the Kaminoyama-Funagata section, O-U main line, was disorganized on August 27th, the stone fences and bridges being breached and washed away at more than twenty places. The traffic was resumed on 29th, with the exception of the Oishida-Funagata section where connection by transhipment had to be resorted to till September 4th when through service was opened. The Nihonmatsu-Iwanuma section, North Eastern main line, was submerged for a length of over 50 miles on August 27th. The damage was particularly bad on the Shiroishi-Tsukinoki section, where owing to the heavy breach of embankment and shore protection work the traffic was suspended from the midnight of 27th. Connection by transhipment was established on the Shiroishi-Kitashirakawa section on September 5th and through communications on the day following, while the Kitashirakawa-Okawara section was reopened for service on September 1st and the Okawara-Tsukinoki section on September 12th after seven days of transhipment service. On August 27th the traffic was disorganized on the Kogota-Furukawa sections, Riku-U line, owing to the collapse of the embankment of the river Naruse, and on the Nakashinden-Iwade section as a result of the shore protection work of the river Iikawa being swept away, through communications being restored on both sections on September 4th. On October 3rd, the Seki-Kada-Tsuge section, Kansai line, was blocked owing to the heavy damage wrought upon the embankment and retaining wall by the torrents which rushed down the gorges intersecting the Suzuka mountain range. Connection by transhipment was effected on 8th, but through service was not resumed until 15th on the Seki-Kasa section and 13th on the Kada-Tsuge section. The train service was also disrupted on the Kutani-Hamasaka section, San-in line, owing to the collapse of the embankment near the up distant signal at Kutani station on October 17th, while the Kutani-Hamasaka section, was also breached at several places. On both sections, however, connection by transhipment was opened on 18th and through service on 27th.

In January, 1914 owing to the volcanic eruption of Sakurajima Isle, Kagoshima prefecture, the fall of ashes was experienced along the line leading to the City of Kagoshima, while the Kagoshima-Shigetomi section was blocked for two days by heaps of stones that tumbled down the hillside.

(11) Violations of Railway Rules and Regulations.

Description / Jurisdiction	Tokyo Division	Kobe Division	Kyushu Division	Hokkaido Division	Total
Placing obstacles on tracks	40	48	44	6	138
Throwing stones at trains	98	52	43	8	201
Firing at trains	2	2	—	—	4
Opening doors of trains in motion	3	15	2	—	20
Tampering with alarm bells in cars	2	—	—	—	2
Getting on or jumping down trains in motion	24	37	25	10	96
Trespassing on railway ground	25	141	84	3	253
Damaging signals	2	—	4	—	6
Removing indicators and notices in railway grounds	1	3	1	—	5
Tampering with points	—	—	—	1	1
Throwing packages out of trains in motion	—	—	1	—	1
Travelling aboard with explosives	—	1	—	—	1
Vending in trains	—	92	—	—	92
Misrepresenting articles consigned for delivery	—	4	—	2	6
Travelling in cars not open for public use	—	1	1	3	5
Interfering with service	—	3	—	2	5
Total	197	399	205	35	836

CHAPTER IV.

TRAFFIC ARRANGEMENTS.

The following are the more important traffic arrangements made during the year :—

A lease was effected of the Awa Kyodo Kisen Steamshipping Co.'s Tokushima-Komatsushima railway line, a distance of 6.9 miles, it being judged advantageous to work the line on the same arrangements with the State railway lines for facilitating through traffic service between the Main Island and the Island of Shikoku. The leased line was opened for service on April 20th, when, simultaneously, joint traffic was inaugurated between the Tokushima line and the Hyogo-Komatsushima steamer route worked under joint management of the Kyodo Kisen Kaisha and the Osaka Shosen Kaisha.

The Ashio Railway Co.'s Shimoshinden-Ashio line was also leased and opened for traffic on October 13th.

The restriction as to section and class in the sale of commutation tickets were removed, whereby this convenience was thrown open to all sections throughout the system and made accessible to all passenger classes.

The need of making up-to-date the Rules of Railway Transportation enacted in 1900, became more and more imperative with the growth of traffic and during the year a revision was effected in the provisions relating to (1) pet animals to be taken into carriages and (2) the imposition of additional charges against cases of fraudulent misrepresentation of consignment. As regards the first item, the new provision was made for allowing dogs and other pet animals to be taken into the carriages at certain extra charges, absence of which provision was often responsible for no small inconvenience for the travelling public. Secondly in recovering loss arising from the fraudulent misrepresentation of consignment in designation and quantity, the public prosecution against the offence or the imposition of additional charges which had been the practice in force, was found inadequate to check irregularities of the kind, and, accordingly, a revision was made in the provision relating thereto, whereby the penalty was expressly stipulated, while the amount to be so charged was increased. It is satisfactory to note that the revision has proved producive of the desired results in diminishing cases of overloading and mixed consignments.

The imposition of additional charges upon the passenger who, having no time to buy his ticket, has got aboard with permission of the official in charge, was judged unfair and abolished on September 8th.

From October 1st on first class passenger carriages were withdrawn from local traffic service, and second and third class carriages substituted in their places, the idea being to remove the wastage of working sparsely-occupied carriages and to provide better accommodation for second and third class passengers.

The wagon ferry service across the Straits of Shimonoseki has since its inception shown most reassuring results in facilitating through goods traffic between the Main Island and the Island of Kyushu. In the year under review the service which had, by special agreement, been left in the charge of a private concern, was brought under direct management of the Railways in view of the various inconveniences attendant upon the contract business arrangements.

With a view to extending far into Western Europe the scope of over-sea through traffic service which had been in practice for some time for the conveyance of passengers and their luggage between principal points in European Russia and Japan, it was arranged with the railways concerned to inaugurate on June 10th the sale of through railway and steamer tickets and the through booking of luggage reading to some principal cities in Western Europe. On the other hand, the sale of circular tour tickets was opened on September 15th for the benefit of passengers who intend to make a round trip of the Eastern Hemisphere.

Direct traffic with China had hitherto been confined to the sale of through railway-and-steamer tickets reading to Tientsin and Shanghai through the intermediate steamer service run by the Nippon Yusen Kaisha and the Osaka Shosen Kaisha. On October 1st through traffic was opened for passengers and their luggage between Tokyo and 8 other cities on the one hand and on the other Tientsin and Peking on the Peking-Mukden line of the Chinese Government Railways.

The pending question over the proposed Manchurian-Japanese through goods traffic with the Chinese Eastern Railway was finally settled and the service was put into force on January 1st. With the opening of this through service great facilities were given to the conveyance of goods bound for North Manchuria, resulting

in the removal of the trouble of rebooking at Dairen or Changchun.

It had been noted for some time that cotton yarn, cotton tissue and other export goods booked for Manchuria in increasing volume of recent years were mainly conveyed by the sea route from Osaka or Kobe to Dairen, instead of taking the overland route via Chosen railways. As this unequal distribution of traffic was mainly attributable to the disparity of rates between the two different routes, arrangements were made with the Railway Bureau of Government-General of Chosen for straightening out matters by a reduction of through rates upon cotton goods bound for Manchuria. The reduction was put into force on August 10th when a preference of one third of customs charges was accorded by the Chinese Government to all Japanese goods entering the Republic by Chosen railway lines.

As a means of administering relief to the famine-stricken people in the North Eastern Districts and the Island of Hokkaido and also to the sufferers from the disastrous eruption of Sakurajima Isle, Kagoshima prefecture, and the earthquake experienced in Akita prefecture, the benefit of free transport or 50 per cent. reduction of freight was granted to specified goods booked to or from these districts.

A large number of private light railways which were newly opened for business of recent years, entered into joint traffic arrangements with the State lines. During the year under review the Matsuzaka, the Tateyama, the Ibara-Kasaoka, the Ube, the Takeoka, the Uonuma, the Fuji-Minobu, the Yoro, the Joso, the Minato, the Yabakei, the Choshi-Yuran, and the Mikawa light railway as well as the Nagoya and the Aichi electric tramway were added to the list of joint traffic arrangements with the Imperial Government Railways.

Joint traffic service was also arranged with the steamship routes of the Chosen Mail, the Oki and the Tan-Etsu Steamshipping Company.

Through Traffic Conference. The first Japan-China through passenger traffic conference was held at the Head Office of the Imperial Government Railways, Tokyo, in March and April, 1913, in which the Traffic Manager of the Peking-Mukden line of the Chinese Government Railways, the Secretary of Communication Department of the Chinese Government and the delegates of the Railway Bureau of Government-General of Chosen, of the South Manchuria Railway and of the Imperial Government Railways participated, and carried on deliberations over matters relating to the through conveyence of passengers and their luggage to be inaugurated between points on the Japanese State Railway lines and Tientsin and Peking on the Peking-Mukden line of the Chinese Government Railways via the Chosen and the South Manchuria Railway lines.

In the same month, another international conference was held at the Head Office of the Imperial Government Railways, Tokyo, in connection with the conveyance of goods in the Manchurian-Japanese through goods traffic. The Chinese Eastern Railway and the Russian Volunter Fleet on the Russian side and on the Japanese side the Railway Bureau of Government General of Chosen, the South Manchuria Railway, the Osaka Shosen Kaisha and the Imperial Government Railways were represented at the conference. The questions deliberated upon were (1) the final decision of the Tariff for the conveyance of goods in the Manchurian-Japanese through traffic, (2) the establishment of special freight upon wheat flour and (3) the opening of through transport of raw silk of Japanese production.

CHAPTER V.

MAINTENANCE AND IMPROVEMENT OF WAY.

(1) MAINTENANCE WORKS.

Numerous provisions were made where necessary throughout the system with a view to maintaining the tracks in efficient condition and commensurate with the increasing traffic. To be particular, the re-sleepering, the repair of roadbeds, the repainting and re-rivetting of iron bridge girders, the replacement of worn-out rails and fastenings as well as the repair of buildings were assiduously attended to, while on the other hand extensive repairs and alterations were carried out to permanent way and buildings in connection with the additional and improvement works. Though no small sum was expended upon emergency and restoration works incidental to hurricanes, torrential rainfall and washaways which involved the lines in more or less damage during the year, the best attention was paid to keeping down expences as well as to ensuring the satisfactory repairs. Then, the remaing portion of the repair work due to the damage from the floods in the previous years was carried out in several parts of the system.

The amount of expenses debited to the maintenance works this year was 12,624,686 yen, an increase of 1,272,183 yen over the preceding year.

The details are tabulated below according to jurisdiction :—

(a) **Tokyo Division.**

Item	No. of places or buildings	Amount
Rails renewed	—	*yrd.* 40,961
Switches renewed	—	*set* 137
Crossings renewed	—	,, 198
Resleepering	—	296,294
Sleepers for bridges renewed	—	7,706
Sleepers for switches and crossings renewed	—	10,979
Additional ballasting	*m.c.l.* 456.53.94	*c.t.* 15,147
Platforms and loading stages rebuilt	50	*ft.* 13,854
Cuttings and embankments	45	*c.t.* 2,262
Ground-making	25	,, 1,582
Reballasting	*m.c.l.* 62.53.55	*c.t.* 4,079

(b) **Kobe Division.**

Item	No. of places or buildings	Amount
Retaining-walls for tracks and shore protections	24	*tsubo* 525
Rails renewed	—	51,939
Switches renewed		*set* 194
Crossings renewed		,, 154
Resleepering		523,557
Sleepers for bridges renewed		14,659
Sleepers for switches and crossings renewed		17,960
Additional ballasting	*m.c.l.* 502.09.35	*c.t.* 25,074
Reballasting	*m.c.l.* 186.04.09	,, 10,114
Retaining walls for platforms and loading stages removed or rebuilt	103	*ft.* 28,206

(c) Kyushu Division.

Item	No. of places or buildings	Amount
Cuttings and Embankments ...	1	*c.t.* 1,032
Retaining wall and shore protection	1	*tsubo* 120
Rails renewed	—	*yrd.* 12,463
Switches renewed	—	*set* 114
Crossings renewed	—	„ 141
Resleepering	—	288,541
Sleepers for bridges renewed...	—	5,331
Sleepers for switches and crossings renewed	—	9,637
Additional ballasting	*m.c.l.* 263.16.58	*c.t.* 7,795
Reballasting	„ 25.59.75	„ 2,816
Retaining walls for platforms and loading stages removed or rebuilt	5	*ft.* 1,475

(d) Hokkaido Division.

Item	No. of places or buildings	Amount
Cuttings and Embankments...	4	*c.t.* 2,895
Rails renewed	—	*yrd.* 24,587
Switches renewed	—	*set* 91
Crossings renewed	—	„ 195
Resleepering	—	403,743
Sleepers for bridges renewed...	—	4,318
Sleepers for switches and crossings renewed	—	12,811
Additional ballasting	*m.c.l.*1,044.13.13	*c.t.* 20,104
Retaining walls for platforms and loading stages removed or rebuilt	12	*ft.* 4,550
Snow-ploughing	—	88,170
Snow-screens repaired	3	*ft.* 1,780
Snow-fences rebuilt	104	„ 54,561

N.B.—'*c.t.*' = cubic *tsubo*.

(2) ADDITIONAL WORKS.

In pursuance of the policy of securing the facilities adequate to cope with the increasing traffic, particular attention was directed to the increase of additional siding accommodation, the enlargement and repair of buildings and structures and also the betterment of signalling and other safety appliances, while various provisions were made in order to ensure better track and station accommodation.

The amount of expenditure debited to the additional work was 1,617,392 yen, an increase of 556,649 yen over the preceding year.

The details are tabulated below according to jurisdiction :—

(a) Tokyo Division.

Item	No. of places or buildings	Amount
Land :—		
Land purchased	—	*c.t.* 5,229
Earthworks :—		
Cutting, ground-making, embanking, etc....	—	*c.t.* 9,605
Bridges :—		
Bridges built or enlarged	3	*ft.* 68
Curlverts :—		
Culverts enlarged	4	*ft.* 20
Permanent Way :—		
Sidings laid newly or additionally	75	*m.c l.* 7.34.85
Points and crossings provided newly or additionally	47	*set* 87
Diamond-crossings additionally provided	1	„ 1
Stations :—		
Main buildings enlarged, removed or remodelled	6	*tsubo* 57
Platforms and loading stages built, enlarged or reconstructed... ...	31	„ 6.089
Signals provided newly or additionally	—	25
Interlockings provided newly or additionally, or renewed	—	*set* 30
Snow-screens additionally set up...	—	*ft.* 84
Nursery for young shoots	—	*tsubo* 149
Fences and Boundaries :—		
Fences made newly or additionally	15	*ken* 990

(b) Kobe Division.

Item	No. of places or buildings	Amount
Land :—		
Land purchased	—	*tsubo* 7,527
Earthworks :—		
Cutting, ground-making, embanking, etc....	—	*c.t.* 17,532
Bridges :—		
Bridges enlarged or reconstructed	5	*ft.* 1,283
Culverts :—		
Culverts enlarged	12	*ft.* 81
Permanent Way :—		
Tracks and sidings laid newly or additionally	70	*m.c.l.* 13.30.92
Points and clossings provided newly or additionally	27	*set* 52
Stations :—		
Main buildings constructed newly or additionally	24	*tsubo* 294
Platforms and loading stages constructed newly or additionally...	44	*tsubo* 8,525
Overbridges constructed or enlarged		2
Signals provided newly or additionally		39
Interlockings provided newly or additionally		*set* 104
Fences and Boundaries :—		
Fences made newly or additionally	37	*ken* 1,522

(c) Kyushu Division.

Item	No. of places or buildings	Amount
Land :—		
Land purchased	—	*tsubo* 994
Earthwork :—		
Cutting, ground-making and embanking		*c.t.* 1,864
Culverts :—		
Culverts constructed	—	*ft.* 6
Permanent Way :—		
Sidings additionally laid	9	*m.c.l.* 37.69
Points and crossings provided newly or additionally	14	*set* 15
Stations :—		
Main buildings built, enlarged or remodelled	2	94
Platforms and loading stages built, enlarged or rebuilt	10	*ft.* 2,120
Signals provided or renewed... ...	—	12
Interlockings provided newly or additionally or renewed	—	*set* 24
Fences and Boundaries :—		
Fences made newly or additionally	—	*ken* 570

(d) Hokkaido Division.

Item	No. of places or buildings	Amount
Land :—		
Land purchased	—	*tsubo* 1,314
Earthwork :—		
Cutting, ground-making and embanking	—	*c.t.* 12,894
Bridges :—		
Bridge reconstructed	1	*c.t.* 84
Culverts :—		
Wooden culverts constructed ...	1	*ft.* 8
Permanent Way :—		
Tracks laid	2	*m.c.l.* 30.83
Sidings additionally laid	12	„ 1,27.05
Points and crossings provided ...	9	
Stations :—		
Main buildings enlarged	2	*tsubo* 20
Platforms and loading stages built or enlarged	9	*ft.* 780
Signals renewed	—	*set* 2
Interlockings provided	—	1
Fences and Boundaries :—		
Fences made	12	*ken* 50

N.B. '*c.t.*'=cubic *tsubo*.

(3) IMPROVEMENT WORKS.

During the year under review various kinds of improvement works were undertaken all over the lines with a view to bring them to a higher standard of efficiency, these being the doubling of lines, the enlargement of stations, the reconstruction of bridges, the modification of curves and gradients, span widening and other minor affairs. The whole amount of outlay required for these works reached 22,591,407 yen, being 8,426,358 yen less than the corresponding figures for the preceding year. The following tables give details of the more important items of improvement works according to jurisdiction :—

(a) Tokyo Division.

Locality	Particulars	Outlay	Date	
			Commenced	Completed
		yen		
Oyama-Utsunomiya	Doubling of line	310,798	August, 1912	April, 1913
Kameido-Etchujima	Land purchase	339,054	January, 1913	Incomplete
Kameido-Matsudo ... ... } Mahashi-Abiko ... ... }	Laying of second line	553,052	October, 1911	May, 1913
Kitasenju-Abiko	Land purchase	28,999	June, 1910	September, 1913
Tenryugaga bridge	Improvement	1,066,162	August, 1910	August, 1913
Zushi-Taura	Second line, signal station, etc.	42,493	December, 1913	Incomplete
———	Re-roofing of cottages along the line with incombustible material	587,935	February, 1911	July, 1913
———	Re-roofing of railway buildings with incombustible material	70,444	December, 1911	Incomplete
North Eastern main and O-U main lines	Provision of snow-screens	43,231	July, 1912	„
Ueno-Uguisudani	Laying of electric tram line...	38,267	January, 1914	March, 1914
North Eastern main, Joban and Nikko lines	Renewal of bridge girders	16,729	November, 1913	Incomplete
Tokaido line	Renewal of girders—Haranotani bridge	115,499	December, 1913	March, 1914
Joban line	Renewal of girders—Edogawa bridge...			
Suzukawa station	Regrading, etc....	28,8 8	January, 1913	Incomplete
Tokaido line	Regrading-near R. Uruoi	69,800	February, 1912	November, 1913
Nakaizumi-Tenryugawa	Bridge reconstruction and enlargement ...	33,097	June, 1912	June, 1913
Kakegawa-Fukuroi	Regrading	35,436	April, 1912	May, 1913
Shiroishi-Kitashirakawa	Protection for track	18,284	December, 1912	May, 1913
Yotsukura-Kunohama	Diversion of line	34,821	October, 1912	„
Shin-Etsu line	Roadbed improvement, etc.	26,029	November, 1911	August, 1913
Sekigahara bridge	Reconstruction and enlargement	41,086	January, 1913	March, 1914
Shin-Etsu line	Regrading	19,190	December, 1912	„
Kamikawa bridge	Reconstruction & enlargement	12,370	December, 1911	May, 1913
Totsuka-Kozu	Span-widening	19,338	December, 1912	September, 1913
Tokaido line	Renewal of rails	168,771	December, 1913	Incomplete
Shimbashi station	Partial reconsruction	20,310	August, 1913	November, 1913
Yamakita station	Reconstruction and enlargement of official residence, etc.	27,408	December, 1912	May, 1913
Gotemba station	Provision of interlockings	13,540	September, 1912	July, 1913
Numazu station	Enlargement	28,115	November, 1913	Incomplete
„	Land purchase	27,257	July, 1911	„
Suzukawa station	Enlargement	72,292	January, 1911	„
Shizuoka station	Enlargement and provision of interlockings	15,813	August, 1912	January, 1914
Nakaizumi station	Enlargement	92,777	October, 1912	December, 1913
„	Provision of interlockings	2,293	January, 1914	March, 1914

(a) Tokyo Division.—*Continued.*

Locality	Particulars	Outlay	Date	
			Commenced	Completed
		yen		
Hamamatsu station	Provision of interlockings	21,696	November, 1912	July, 1913
Shinjuku station	Land purchase for enlargement	23,018	October, 1913	December, 1913
,,	Enlargement	16,545	February, 1913	September, 1913
Ogikubo station	,,	36,395	November, 1913	Incomplete
Iidamachi station	Land purchase for enlargement	42,164	—	—
Otsuki station	Additional sidengs, etc.	17,288	December, 1912	June, 1913
Kamisuwa station	Partial remodelling of main building	17,049	,,	April, 1913
Yabuhara station	Additional sidings, etc.	16,728	February, 1913	December, 1913
Itabashi station	Enlargement	73,273	June, 1912	July, 1913
Sugamo station	,,	29,642	October, 1912	August, 1913
Tabata station	Land purchase	331,327	June, 1910	April, 1913
,,	Enlargement	201,984	January, 1913	Incomplete
Omiya station	Partial reconstruction	120,547	March, 1912	,,
Koriyama station	Reconstruction	182,738	,,	,,
Kogota station	Removal and reconstruction	66,378	September, 1912	March, 1914
Ichinoseki station	Reconstruction	164,834	March, 1911	Incomplete
Uramachi station	Enlargement and land purchase	26,775	July, 1911	March, 1914
Kuroiso-Kurotawara	New signal station	13,690	February, 1914	Incomplete
Mure-Kashiwabara	,,	19,613	April, 1913	November, 1913
Shinonoi station	Additional sidings, new platforms, etc.	13,954	November, 1913	March, 1914
Naoetsu station	Additional sidings, etc.	14,057	March, 1913	,,
Arai station	Enlargement	10,221	—	Incomplete
Sukegawa station	Remodelling of line, etc.	19,659	March, 1914	,,
Shinjo-Shimmachi	New station	24,045	October, 1912	July, 1913
Oami station	Reconstruction of water tank	11,206	March, 1914	March, 1914

(b) Kobe Division.

Locality	Particulars	Outlay	Date	
			Commenced	Completed
		yen		
Shimonoseki	Provision of ferry piers	220,864	September, 1912	Incomplete
,,	Dredging	20,314	—	—
Kizu-Nara	Doubling of line	93,135	August, 1912	March, 1914
Kizu station	Enlargement	131,697	March, 1913	Incomplete
Nara station	Land purchase for enlargement	25,195	September, 1913	March, 1914
Osaka-Tamatsukuri	Doubling of line-1st section	234,987	June, 1912	,,
,,	,, 2nd section	234,951	August, 1912	Incomplete
,,	,, 3rd section	105,816	December, 1912	March, 1914
,,	Construction of Yodogawa bridge	149,935	September, 1912	Incomplete
Yasugawa bridge	Girder improvement	229,957	February, 1913	June, 1913
Yukida-Osaka	Diversion of line	397,566	August, 1912	December, 1913
Yamashina-Kyoto Takatsuki-Ibaraki	,,	81,406	April, 1913	September, 1913
Yamazaki-Ibaraki	,,	104,397	September, 1913	February, 1914
Mukomachi-Takatsuki	,,	31,706	February, 1914	March, 1914
Mukomachi-Tamazaki	,,	17,776	—	—
Kyoto-Kanzaki	,,	38,101	—	—
Kamagori-Kobe	Roadbed improvements	14,879	February, 1912	February, 1914
Sekigahara-Kashiwabara	Renewal of rails	10,147	November, 1913	December, 1913
Sekigahara-Maibara	Roadbed improvement	10,610	August, 1913	Incomplete
San-yo main line	Regrading	—	—	—
Fukagawa-Shimonoseki	Additional sleepering	17,719	March, 1913	July, 1913
Kozoji-Tajimi	Renewal of rails	27,984	November, 1911	December, 1912
Sakuranomiya-Hanaten	Track improvement	31,689	August, 1912	December, 1913
Kyoto-Kizu	Additional sleepering	16,898	April, 1913	July, 1913
Nagoya-Kamegawa Kamo-Minatomachi	,,	31,694	July, 1912	May, 1913
Maibara-Tsubata	,,	—	—	—
Kyoto-Akashi	Span-widening	37,832	September, 1912	July, 1913
Tokaido line, etc.	,,	10,306	August, 1913	March, 1914
Nishinomiya-Ashiya	Construction of Ashiya station	19,593	November, 1912	July, 1913
Osaka station	Land purchase for enlargement	167,757	January, 1913	August, 1914
Maibara station	Enlargement	169,305	June, 1911	Incomplete
Gifu station	Renewal	113,669	February, 1913	August, 1913
,,	Provision of interlockings	20,309	August, 1912	February, 1914
Ichinomiya station	Additional sidings	12,031	February, 1913	May, 1913
Ogaki station	Sidings added and removed	34,103	July, 1913	Incomplete
Notogawa-Hachiman	Construction of Azuchi station	11,996	December, 1913	,,
Kisogawa station	Provision of interlockings	21,552	July, 1912	July, 1913
,,	Land purchase for enlargement	23,574	March, 1911	June, 1913
Atsuta station	Additional sidings, etc.	25,362	March, 1913	November, 1913
Ofu station	Removal of line & provision of interlockings	27,331	December, 1911	August, 1913
Toyohashi station	Provision of interlockings	32,982	November, 1912	October, 1913
Maizuru station	Improvement	29,241	May, 1912	September, 1913
Tsuruga station	Provision of quarters for engine house staff, etc.	10,949	November, 1913	February, 1914
,,	Construction of official residence	15,107	,,	March, 1914
Ogiri station	Enlargement	10,047	October, 1913	,,

(b) Kobe Division.—*Continued.*

Locality	Particulars	Outlay	Date Commenced	Date Completed
		yen		
Oi station	Additional sidings, etc.	23,843	November, 1912	October, 1913
Nakatsugawa station	Provision of interlockings	10,702	October, 1912	September, 1913
Agaho signal station	Conversion to ordinary station	23,696	November, 1912	June, 1913
Saijo station	Enlargement	17,476	,,	,,
Honjo station	,,	15,534	January, 1913	December, 1913
Kawachi station	,,	35,212	,,	August, 1913
Nawa station	,,	16,425	February, 1913	December, 1913
Aritoshi station	,,	10,693	,,	January, 1914
Wake station	,,	12,275	,,	February, 1914
Niwase station	,,	17,288	,,	January, 1914
Tamashima station	,,	18,429	,,	November, 1913
Komokata station	,,	10,261	,,	,,
Mihara station	,,	17,043	,,	October, 1913
Hachihonmatsu station	,,	21,096	,,	December, 1913
Seno station	,,	19,338	March, 1913	—
Itozaki station	Provision of turntable	29,940	October, 1913	March, 1914
Hiroshima station	Land purchase for enlargement	65,439	—	—
Shimonoseki station	Pier, goods stores, etc.	19,683	January, 1914	March, 1914
Fukuchiyama station	Improvement	23,915	November, 1912	April, 1913
Nitoyono station	Enlargement	13,627	,,	,,
Yao station	,,	35,710	October, 1912	August, 1913
Kameyama station	,,	108,683	Junuary, 1913	January, 1914
Tomita station	,,	19,557	December, 1912	May, 1913
Koyaguchi station	Improvement	12,404	November, 1912	,,
Hanaten station	Enlargement	18,518	November, 1913	Incomplete
Kyoto station	Enlargement	2,850,883	March, 1911	Incomplete

(c) Kyushu Division.

Locality	Particulars	Outlay	Date Commenced	Date Completed
		yen		
Orio-Ongagawa	Doubling of line	436,726	March, 1911	May, 1913
Kamimio-Urushio	Extension of line and enlargement of Kamimio station	256,780	May, 1912 / October, 1912	April, 1913 / February, 1914
Dairi-Kokura	Renewal of girders	19,315	December, 1911	September, 1914
,,	,,	41,795	May, 1913	Incomplete
Kashii-Hakozaki	,,	44,801	,,	January, 1914
Kokura-Tabata	,,	69,556	April, 1912	May, 1913
Tosu-Kurume	,,	180,558	December, 1912	Incomplete
Orio-Ongagawa	,,	14,627	October, 1911	April, 1913
Moji-Dairi	,,	107,544	April, 1912	,,
Kokura-Shirono	Renewal of rails	25,385	March, 1914	Incomplete
Nagasaki-Kagoshima	Tunnels—renewal of rails,	28,121	February, 1913	October, 1913
Chikuho and Ida lines	Roadbed improvement	24,362	March, 1913	February, 1914
Kagoshima main line / Nagasaki main line / Tagawa line / Kobukuro line	Renewal of rails	421,689	August, 1912	June, 1913
Nagasaki main line	,,	24,288	April, 1912	September, 1913
,,	Laying of special rails in substitute	136,857	August, 1912	June, 1913
Kagoshima main line	,,	429,179	October, 1913	March, 1914
Moji station / Kuzuha goods station	Enlargement / New station	343,583	March, 1913	Incomplete / January, 1914
Tobata station	Enlargement	61,277	February, 1913	December, 1913
Koba station	,,	42,336	December, 1912	Angust, 1913
Kamikumamoto station	,,	115,392	December, 1912	October, 1913
Kumamoto station	,,	220,349	March, 1913	Incomplete
Tobata station	Provision of coal pier	76,239	December, 1912	June, 1913
Hakata-Futsukaichi	New station	29,450	August, 1913	November, 1913
Moji-Shimonoseki	Provision of ferry pier	20,091	December, 1913	Incomplete
Hakata station	Additional sidings	12,961	March, 1914	,,
Togo station	New station	45,823	September, 1912	April, 1913
Kanzaki station	Enlargement	63,930	December, 1912	September, 1913
Haiki station	,,	142,064	April, 1912	May, 1913
Nishikaratsu station	,,	55,941	December, 1912	November, 1913
Kotake station	,,	86,303	April, 1912	May, 1913
Nakama station	,,	73,799	September, 1913	Incomplete
Wakamatsu station	Enlargement of pier, etc.	51,582	March, 1914	,,

(d) Hokkaido Division.

Locality	Particulars	Outlay	Date Commenced	Date Completed
		yen		
Momijiyama-Shimizuzawa	Doubling of line	314,534	January, 1913	Incomplete
Yubari station	Improvement	488,125	February, 1912	September, 1913
Temiya station	Plate-laying, etc.	161,441	November, 1911	March, 1914
Muroran station	„	105,481	September, 1911	Incomplete
Muroran	Reclamation work	229,174	July, 1910	April, 1913
Muroran station	Dredging	323,963	June, 1910	„
„	Provision of engine shed, etc.	76,786	June, 1912	January, 1914
Muroran	Platelaying on reclaimed land	45,793	May, 1913	June, 1913
Shiraigawa station	New station	36,825	November, 1912	March, 1914
Hakodate main line	Track improvement	109,419	September, 1912	December, 1913
Hakodate	Ferry improvement	103,091	July, 1913	Incomplete
Otaru	Reclamation work	361,268	May, 1912	„
„	Platelaying on reclaimed land	41,752	November, 1913	„
Kamuikotan	Tunnelling	245,435	June, 1911	May, 1913
Asahigawa station	Improvements	170,094	May, 1912	Incomplete
Gutchian station	Provision of water supply appliance	18,545	November, 1912	August, 1913
Himegawa and Namiwaka	New signal station	22,750	October, 1912	December, 1913
Kanayama, Oishiri, and Ichikishiri	New station	60,328	October, 1912	Incomplete
Ochiai station	Improvement	10,678	July, 1913	January, 1914
Wassamu station	„	26,059	May, 1913	March, 1914
Hakodate line	Provision of snow and wind screens	52,178	June, 1913	Incomplete
„	Track improvement	22,967	February, 1913	October, 1913
„	Regrading	25,461	July, 1912	July, 1913
„	Re-cutting	12,348	September, 1912	May, 1913
Yotchigawa bridge	Reconstruction	93,162	August, 1912	November, 1913
Hakodate line	Roadbed improvement	70,133	March, 1911	May, 1913
„	Roadbed improvement, etc.	12,270	May, 1912	August, 1913
Kushiro line	Track improvement	24,173	August, 1912	September, 1913
Ikeda-Atsunai	Renewal of rails	286,464	June, 1912	November, 1913
Obihiro-Ikeda	„	32,848	„	„
Ombetsu-Atsunai	„	63,369	October, 1913	Incomplete
Kushiro-Ombetsu	„	21,942	—	—
Kushiro line	Roadbed improvement	13,684	September, 1912	October, 1913
„	Cuttings	12,228	November, 1912	June, 1913
„	Track improvement	34,185	December, 1911	„
Yubari line	Roadbed improvement	20,411	October, 1912	September, 1913

(4) BUILDING MATERIALS USED FOR TRACKS AND BRIDGES.

Item		Maintenance Works	Additional Works	Improvement Works	Total
		yard	*yard*	*yard*	*yard*
Rails	75 lb.	8,769	198	261,875	**270,892**
	70 lb.	31	70	206	**307**
	60 lb.	177,415	61,601	535,208	**774,224**
	56 lb.	41	157	609	**807**
	50 lb.	5,613	4,635	3,212	**13,460**
	45 lb.	3,910	9,752	7,078	**21,040**
	30 lb.	300	—	—	**300**
	Double-headed	485	—	8	**493**
	Total	196,564	76,413	808,496	**1,081,473**
Fish-Plates	for 75 lb. rails	1,958	68	47,118	**49,144**
	for 70 lb. rails	272	32	52	**356**
	for 60 lb. rails angle	96,787	17,146	112,364	**226,297**
	for 60 lb. rails flat	12,679	4,691	12,735	**30,105**
	for 56 lb. rails	32	—	—	**32**
	for 50 lb. rails	1,528	1,174	804	**3,506**
	for 45 lb. rails	1,237	2,340	3,052	**6,629**
	special brand	18,921	2,269	7,785	**28,975**
	Total	133,414	27,720	183,910	**345,044**
Fish-Plate Chairs		2,238	70	1,209	**3,517**
Bolts for Fish-Plates	for 75 lb. rails	12,542	188	150,228	**162,958**
	for 70 lb. rails	2,874	64	88	**3,026**
	for 60 lb. rails	427,458	30,465	263,718	**721,641**
	for 50 lb. rails	20,343	2,142	2,935	**25,420**
	for 45 lb. rails	11,199	4,893	6,413	**22,505**
	for 40 lb. rails	20	—	—	**20**
	for 35 lb. rails	154	—	—	**154**
	for doubleheaded rails	50	—	—	**50**
	Total	474,640	37,752	427,382	**935,774**
Locknut Chairs		741,179	34,827	390,580	**1,166,586**
Dog-Spikes		1,424,818	231,495	2,306,013	**3,962,326**

(4) BUILDING MATERIALS USED FOR TRACKS AND BRIDGES.—*Continued.*

Item		Maintenance Works	Additional Works	Improvement Works	Total
		yard	*yard*	*yard*	*yard*
Points	for 75 lb. rails	5	3	66	74
	for 70 lb. rails	—	1	45	46
	for 60 lb. rails	676	173	904	1,753
	for 56 lb. rails	1	—	—	1
	for 50 lb. rails	31	17	7	55
	for 45 lb. rails	46	5	57	108
	Total	759	199	1,079	2,037
Crossings	for 75 lb. rails	19	3	65	87
	for 70 lb. rails	3	1	2	6
	for 60 lb. rails	792	147	924	1,863
	for 50 lb. rails	29	8	6	43
	for 45 lb. rails	32	8	66	106
	Total	875	167	1,063	2,105
Parts of Points and Crossings — Pointed rails	for 75 lb. rails	5	—	52	57
	for 70 lb. rails	1	—	—	1
	for 60 lb. rails	300	—	44	344
	for 50 lb. rails	206	—	—	206
	for 45 lb. rails	23	—	—	230
Stock rails	for 60 lb. rails	90	—	46	136
	for 50 lb. rails	57	—	—	57
	for 45 lb. rails	28	—	—	28
Guard rails	for 75 lb. rails	—	—	144	144
	for 60 lb. ralis	623	34	102	759
	for 50 lb. rails	8	8	—	16
	for 45 lb. rails	—	—	2	2
Fasternings	Chocks	33,697	156	3,359	37,212
	Chock bolts	20,346	143	1,103	21,592
	Fang bolts	23,174	466	1,739	25,379
	Tie-plates	3,994	28	410	4,432
60 lb. rails Diamond Crossings		1	—	7	8
60 lb. rails Single Slips		—	—	8	8
„ Double Slips		—	—	9	9
„ Scissors Crossings		—	—	3	3
„ Double Switches		—	1	4	5
„ Tie-Plates		3,642	9	15,355	19,006
Screw Spikes for Tie-Plates		921	28	74	1,023
Steel Cover-Plates for Sleepers		1,664	—	—	1,664
Hook-Bolts		52,525	1,140	33,855	87,520
Rail-Braces	wooden	187,082	730	38,463	226,275
	iron	97,089	355	17,976	115,420
75 lb. rails Diamond Crossing		—	—	—	1
75 lb. rails Single Slips		—	—	—	1
Sleepers	Ordinary	1,768,183	30,486	296,036	2,094,705
	Creosoted	29,914	1,354	35,343	66,611
	Total	1,798,097	31,840	331,379	2,161,316
Sleepers for Points and Crossings		65,497	5,690	56,917	128,104
Sleepers for Bridges		48,640	597	19,570	68,807
Materials for Abt System	Rack rails	2,432	—	—	2,432
	Chairs	222	—	—	222
	Sleepers	858	—	—	858
	Fish-plates	585	—	—	585
	Bolts	8,185	—	—	8,185
Rolled Bearers	clear span 2′–0″	—	—	3	2
	„ 3′–0″	1	2	8	11
	„ 4′–0″	4	4	15	23
	„ 4′–6″	2	—	—	2
	„ 5′–0″	1	—	9	10
	„ 5′–6″	—	1	—	1
	„ 6′–0″	2	4	26	32
	„ 8′–0″	7	3	15	25
	„ 9′–0″	1	2	—	3
	„ 10′–0″	2	4	36	42
	„ 12′–0″ and less	3	2	33	38
	„ 14′–0″	4	—	—	4
	„ 14′–6″	—	4	68	72
	„ 15′–0″ and less	3	—	1	4
	„ 16′–0″ and less	—	—	9	9
	„ 17′–0″	—	—	1	1
	„ 18′–0″	—	1	39	40
	„ 20′–0″ and ¾ in.	48	—	1	49
	„ 11′–0″	—	—	4	4
	Total	78	27	268	373

(4) BUILDING MATERIALS USED FOR TRACKS AND BRIDGES — *Continued.*

Item		Maintenance Works	Additional Works	Improvement Works	Total
		yard	*yard*	*yard*	*yard*
Box Girders ...	clear span 6′–0″	—	—	2	2
	,, 8′–0″	—	—	1	1
	,, 9′–0″	—	—	7	7
	,, 12′–0″	—	—	7	7
	,, 15′–0″	—	—	2	2
	,, 18′–0″	—	—	4	4
	,, 20′–0″ and less	—	—	22	22
	Total	—	—	45	45
Plate Girders ...	clear span 6′–0″	—	—	3	3
	,, 8′–0″	—	—	3	3
	,, 10′–0″	—	—	1	1
	,, 11′–0″	—	—	1	1
	,, 12′–0″	—	—	4	4
	,, 15′–0″	1	1	1	3
	,, 18′–0″	—	—	2	2
	,, 20′–0″	3	7	33	46
	,, 22′–0″	—	—	16	16
	,, 22′–10″	—	—	2	2
	,, 25′–0″	—	—	12	12
	,, 28′–0″	—	—	1	1
	,, 29′–0″	—	—	6	6
	,, 30′–0″	1	1	17	19
	,, 40′–0″	1	3	19	23
	,, 41′–0″	—	—	15	15
	,, 41′–6″	—	—	15	15
	,, 42′–0″	—	—	2	2
	,, 46′–0″	—	—	2	2
	,, 48′–0″	—	—	7	7
	,, 49′–0″	—	—	1	1
	,, 50′–0″	1	—	—	1
	,, 57′–0″	—	—	5	5
	,, 60′–0″	—	—	13	13
	,, 70′–0″	—	—	5	5
	,, 80′–0″	—	—	2	2
	Total	7	12	188	297
Trussed Girders	clear span 94′–0″ and 2 in.	—	—	18	18
	,, 100′–0″	—	—	9	9
	,, 150′–0″	—	—	11	11
	,, 200′–0″	—	—	4	4
	Total	—	—	42	42
Girders made of Rails		7	27	34	68
Turntables	6 ft.	—	—	17	17
	14 ft.	1	—	—	1
	17 ft.	—	—	2	2
	40 ft.	—	1	—	1
	50 ft.	—	—	1	1
	60 ft.	1	—	4	5
	Total	2	1	24	27
Iron Over bridges	over double track	—	—	4	4
	over triple track	—	—	10	10
	Total	—	—	14	14

(5) BALLASTING CHARGED TO MAINTENANCE EXPENSES.

Jurisdiction	Item	Main tracks	Sidings	Average ballasting per mile of single tracks	
				Main tracks	Sidings
		tsubo	*tsubo*	*tsubo*	*tsubo*
Tokyo Division	North Eastern main line	8,388	1,291	12.43 for 675 m.	6.42 for 20 m.
	Yamanote line	52	50	1.73 ,, 30 m.	1.79 ,, 28 m.
	Joban line...	2,717	838	11.09 ,, 245 m.	11.03 ,, 76 m.
	O-U line	4,759	260	15.06 ,, 316 m.	3.29 ,, 79 m.
	Gan-Etsu line	906	45	13.94 ,, 65 m.	3.46 ,, 13 m.
	Takasaki and Shin-Etsu lines	5,594	21	19.70 ,, 284 m.	.20 ,, 104 m.
	Sobu line	2,640	326	15.62 ,, 169 m.	.72 ,, 45 m.
	Tokaido line	936	26	1.95 ,, 481 m.	.25 ,, 105 m.
	Yokohama line...	365	—	13.04 ,, 28 m.	— ,, —
	Central line	2,638	—	10.39 ,, 254 m.	— ,, —
	Light Railway line...	212	12	6.42 ,, 33 m.	2.40 ,, 5 m.
	Total	**29,207**	**2,869**	**11.32 ,, 2,580 m.**	**4.37 ,, 656 m.**
Kobe Division	Tokaido line	3,366	—	7.53 ,, 447 m.	— ,, —
	Central line	265	—	3.23 ,, 82 m.	— ,, —
	Hokuroku line...	3,620	336	13.50 ,, 268 m.	4.87 ,, 69 m.
	San-yo line	3,945	347	8.30 ,, 439 m.	2.48 ,, 140 m.

(5) **BALLASTING CHARGED TO MAINTENANCE EXPENCES.**—*Continued.*

Jurisdiction	Item	Main tracks	Sidings	Average ballasting per mile of single tracks	
				Main tracks	Sidings
		tsubo	*tsubo*	*tsubo*	*tsubo*
Kobe Division	Kansai line	5,707	224	16.35 for 349 m.	2.22 for 10 m.
	San-in line	4,575	—	16.10 „ 284 m.	— „ —
	Kurayoshi line	80	—	26.70 „ 30 m.	— „ —
	Fukuchiyama line	1,469	11	20.99 „ 70 m.	.70 „ 16 m.
	Bantan line	565	105	12.82 „ 44 m.	15.00 „ 7 m.
	Sanuki line	255	45	5.93 „ 43 m.	3.20 „ 14 m.
	Tokushima line	245	34	5.31 „ 46 m.	3.00 „ 11 m.
	Komatsushima line	101	6	14.43 „ 7 m.	3.00 „ 2 m.
	Total	**24,193**	**11.08**	**11.27 „ 2,082 m.**	**3.08 „ 360 m.**
Kyushu Division	Kagoshima line	2,746	334	9.09 „ 302 m.	2.46 „ 136 m.
	Nagasaki line	2,359	228	16.38 „ 144 m.	5.30 „ 43 m.
	Hoshu line	832	37	7.50 „ 111 m.	.77 „ 48 m.
	Chikuho line	1,149	112	11.03 „ 104 m.	1.53 „ 73 m.
	Miyazaki line	146	—	3.65 „ 40 m.	— „ —
	Sendai line	109	—	4.74 „ 23 m.	— „ —
	Total	**7,339**	**711**	**10.13 „ 724 m.**	**2.26 „ 314 m.**
Hokkaido Division	Hakodate line	7,520	608	21.48 „ 350 m.	4.28 „ 142 m.
	Muroran line	2,950	29	23.41 „ 126 m.	.43 „ 68 m.
	Rumoi line	916	—	29.54 „ 31 m.	— „ —
	Kushiro line	5,429	574	23.92 „ 227 m.	12.48 „ 46 m.
	Soya line	2,228	—	27.85 „ 80 m.	— „ —
	Abashiri line	1,400	—	10.44 „ 134 m.	— „ —
	Total	**20,443**	**1,211**	**21.56 „ 948 m.**	**4.73 „ 256 m.**

CHAPTER VI.

CONSTRUCTION WORKS.

1. HAMADA LINE.

Izumoimachi-Oda Section (mileage 8 m. 32 ch. 72 lin. 9.; estimated cost or contracted price ¥557,716.061; work commenced February 15th, 1912, and completed December 29th, 1913.)—The earthwork and others on the subsection between 39 m. 20 ch. 8 and 44 m. 40 ch. continued from the preceding year were completed in June, 1913. Similar works on the next subsection stretching to 48 m. 62 ch. 87 lin. 9 also continued from the preceding year, were finished in December, of which cutting work was carried out to a further extent than the prescribed depth owing to the presence of weak strata with the tendency of subsidence. The construction of Chimiya, Enami and Oda stations, all continued from the preceding year, was finished in October, 1913, and next were undertaken the erection of bridge girders, platelaying, etc., all of which were completed in November, when the section was opened to traffic.

Oda-Hanenishi Section (mileage 7 m. 67 ch. 12 lin. 1; estimated cost or contracted price ¥1,059,742.209; work commenced July 25th, 1912)—The earthwork and others on the subsection between 48 m. 62 ch. 87 lin. 9 and 52 m. 57 ch. 87 lin. 9 were continued from the preceding year. The construction of the Tagigawa bridge was completed about 8 parts at the end of the year. Besides some minor alterations made in the original design, the length of its spans was increased to provide against flood damage in future. The bridge when completed will consist of a series of 4 spans of 60 feet each.

The earthwork and others on the subsection between 52 m 57 ch. 87 lin. 9 and 56 m. 50 ch., continued from the preceding year, were finished about 6 parts.

Hanenishi-Asari Section (mileage, 9 m. 39 ch 69 lin.; estimated cost or contracted price, ¥765,507.846; work commenced, December 20th, 1912.)—The earthwork and others on the subsection between 61 m. 20 ch. 50 lin. and 61 m. 49 ch. 62 lin. 4 were continued from the preceding year. The cutting between 61 m. 20 ch. 50 lin. and 61 m. 36 ch. 76 lin. now completed about 3 parts, was given an easier slope to prevent collapse, the soil being sandy.

The line between 62 m. 65 ch. and 64 m. 76 ch. 67 lin. 7 laid along cuttings and embankments was removed toward right to ensure a better maintenance. Besides this there were undertaken some minor works which were completed about 3 parts on the average.

In connection with the construction works yet to be started was carried out, on the Niman-Onsenzu subsection, the erection of a number of temporary buildings, including workmen's quarters.

2. TSUWANO LINE.

Yamaguchi-Shinonome Section (milleage 10 m., estimated cost or contracted price ¥909,962.937; work commenced January 20th, 1913.)—The earthwork and others on the subsection between 14 m. 40 ch. and 18 m. 20 ch. from the Ogori starting point was carried on with assiduous efforts so as to bring them to completion before the end of the year. It was at first decided to construct the tunnels and culverts with bricks, but the scheme was given up later in favour of stones.

The erection of temporary buildings on the section

was completed in June, 1913. A storehouse and provisional accommodation for labourers were provided at Yamaguchi and Kokawachi stations, respectively, while a temporary storehouse was transplanted from Ogori to the latter station.

Purchase of the required land for the section was nearly finished.

Shinome-Tokusa Section—The section starts from 18 m. 20 ch. from the Ogori starting point and terminates at 30 m. 50 ch. from the same starting point, a distance of 12 m. 35 ch. 46 lin. 96. Throughout the section the San-in road keeps close by, intersecting it several times. Hills and plains divide the country with the river Abu meandering, it being crossed by the line as many as six times. The ruling gradient of the line is 1 in 60 with the sharpest curve of 18 ch. radius.

Working survey was completed in July, but purchase of land was not yet started.

3. OHAMA LINE.

(Mileage 57 m. 66 ch. 37 lin. 9; estimated cost or contracted price ¥18,210.842; work commenced March 25th, 1913 and completed March 13th, 1914).

The working survey continued from the preceding year was nearly completed. Though principal construction works were not yet taken up, several preliminary works were carried out, such as removal and remodelling of the sheds for the discontinued Toyama construction Office and official residence and accommodation attached thereto, as well as temporary storehouses and other minor buildings.

4. TOYAMA LINE.

(Mileage 38 m. 26 ch. 40 lin. 2; estimated cost or contracted price ¥88,953.468; work commenced July 19th, 1912 and completed September 8th; 1913). Simultaneously with the opening of the Itoigawa-Omi Section on April 1st, 1913, the Uotsu shore branch laid for construction purposes was removed.

Various construction works on the line continued from the preceding year were all completed, among which may be mentioned enlargement of the loading stages of Omi and Oyashirazu stations, erection of official residence at Ichigawa, Oyashirazu and No stations, a car-mending shop at Itoigawa Station, an overbridge at Itoigawa, Kajiyazaki and No stations, official residence for sectionmen at Itoigawa, and plate-laying and ballasting on the Omi-No section.

No-Naoetsu—Warned by the damage it suffered from a landslide at 16 m. 76 ch. the track was partially removed toward the seashore. Various works carried out for sand preventive purposes were completed.

5. GAN-ETSU LINE.

Kitagata-Tokusawa Section (mileage 22 m. 50 ch. 2 lin. 52; estimated cost or contracted price ¥1,053,569.084; work commenced October 25th, 1907).—On the completion of the works carried out by the Railways on their own account, such as the building of the Kamanowaki cantilever bridge over the river Akanogawa and other works, plate-laying as far as 15 m. 47 ch. from the Kitagata starting point was taken up and with its completion on August 1st, 1913, the Yamato-Nozawa subsection was opened for traffic. Work trains were put in operation between Nozawa and Tokusa for the conveyance of materials for plate-laying, ballasting and erection of girders which were nearly completed at the end of the year.

Tokusawa-Omaki Section (mileage 11 m. 50 ch. estimated cost or contracted price ¥2,004,403.576; work commenced June 25th 1909). The construction of the Toyozane and the Hirase tunnel, the toughest work on the section, was completed during the year. Stonewalling for the Fukado bridge over the river Akano now on the verge of completion and other works forming the remaing portion of the construction work on the section are to be carried on by the Railways on their own accounts. A heavy flood in August 1913, inflicted some damage on the Minorugawa and the Taema bridge in process of buildings, submerging the whole structures under the water. In consequence a partial reconstruction was required in their abutments, piers and formation level. The laying of girders for the Tokusagawa bridge over the Akanogawa, the two most labourious pieces of bridging work on the section was completed, while the falsework for the construction of the Taemagawa bridge have been just started.

The plate-laying was finished as far as 23 m. 10 ch. from the Kitagata starting point and the ballasting to 22 m. 71 ch. The construction work between Omaki (22 m. 34 ch.) and Tsugawa (24 m. 36 ch.) was completed on June 1, 1913, when the subsection was opened for traffic. A similar work between Tsugawa and the Fukado bridge (26 m. 68 ch.) was nearly completed and work trains are now ready for operation.

Omaki-Satori Section (mileage 10 m. 5 ch.; estimated cost or contracted price ¥758,362.727; work commenced May 25th, 1909; and completed July 3rd, 1913).—Various construction works carried out on the section were completed on June 1st, when the section was opened for traffic.

6. MURAKAMI LINE.

(Shibata-Murakami)

(Mileage 20 m. 55 ch.; Estimated cost or contrected price 1,124,502,499; Work commenced October 10th, 1912). The construction of this line was nearly completed as regards earthwork and others. The erection of girders, plate-laying and ballasting were carried on side by side, materials being conveyed by work trains which were in operation as far as the vicinity of the river Tainai.

Purchase of the required land was finished.

7. TAIRA LINE.

Koriyama-Kanameda Section— (mileage 10 m. 50ch.; estimated cost or contracted price ¥917,792.385; work commenced October 9th, 1911). Completion was effected for earthwork and others, and the erection of a main building at Miharu Station, all continued from the preceding year, while the erection of girders, plate-laying, ballasting, etc., are still in progress. Work trains are in operation as f.r as near 8 m. from the Koriyama starting point.

Purchase of the required land was finished.

Kanameda-Natsui Section (mileage 19 m. 45 ch. 2 lin.; estimated cost or contracted price ¥743,417.186; work commenced October 6th, 1912).—The construction work on the section was continued from the preceding year and completed 8 parts for earthwork and tunnelling and 9 parts for bridges and underdrains.

Purchase of required land was effected to the extent of about 8 parts.

Natsui-Kamiogawa Section (mileage 8 m. 25 ch.; estimated cost or contructed price ¥928,108.404; work commenced November 11th, 1912).—The work on the subsection between 30 m. 15 ch. and 30 m. 66 ch. from the Koriyama starting point, between 35 m. 0 ch. and 36 m. 58 ch. from the same starting point, and between 16 m. 55 ch. 70 lin. and 9 m. 25 ch. 0 lin. from the Taira starting point, all continued from the preceding year, were completed on an average 6 parts for earthwork and tunnels, 8 parts for bridges and underdrains and 5 parts for culverts.

Purchase of the required land was finished.

Kamiogawa-Taira Section (mileage 9 m. 25 ch.; estimated cost or contracted price ¥57,318.872; work commenced February 29th, 1912).—The work on the subsection between 6 m. 60 ch. and 9 m. 25 ch. from the Taira starting point, continued from the preceding year, was completed 9 parts for earthwork, bridges, culverts and underdrains, and 7 parts for tunnels. The earthwork between 0 m. 44 ch. and 6 m. 60 ch. and the construction of main building at Akai, Kamiogawa and Go Stations were brought to completion during the year and in succession thereto plate-laying and ballasting were taken in hand.

Purchase of the required land was nearly finished.

The enlargement of Taira station continued from the preceding year was completed. The earthwork and others on the subsections from 0 m. 0 ch. to 0 m. 44 ch. (toward east) and 0 m. 0 ch. to 0 m. 27 ch. (toward west), and the construction of the Inariyama tunnel and other works carried on in the vicinity had to be suspended pending arrangement for land purchase, so that the work made no noteworthy progress except earthwork which was completed about 7 parts by the end of the year.

8. SHINJO LINE.

Kogota-Iwadeyama Section (mileage 16 m. 26 ch.; estimated cost or contracted price ¥243,228.950; work commenced June 23rd and completed April 19th, 1913).—Being mostly completed during the preceding year, the work on the section to be carried out in the year under review consisted of but a small amount of plate-laying and ballasting. On their completion in April, the section was opened for traffic.

Purchase of the required land was effected for the remaining 3 parts.

Iwadeyama-Kawatabi (Formerly Kajiyazawa) Section (mileage 8 m. 64 ch.; estimated cost or contracted price ¥290,949.650; work commenced October 11th, 1911).—The remaider work on the section comprising erection of bridge girders, plate-laying and ballasting were carried on by the Railways on their own accounts, and nearly completed at the end of the year. The section is expected to be ready for traffic early next year.

The construction of main building at Ikezuki and Kawatabi station, both continued from the preceding year, was completed in November and October of the year, respectively.

Purchase of the required land was finished about 8.6 parts.

Kawatabi-Sakaida Section (mileage 8 m. 64 ch.; estimated cost or contracted price ¥290,949.650; work commenced October 11th, 1911). The earthwork and others on the subsection between 25 m. 10 ch. and 31 m. 0 ch. from the Kogota starting point, continued from the preceding year, were still in progress at the end of the year. Being located along the River Arao and passing near the watershed between Miyagi and Yamagata, the line formed one of those sections where the utmost skill was required for construction, especially as regards the boring of the Narugo tunnel, 3,486 feet in length and the Miyagi tunnel measuring 2,923 feet. The construction of the Nakayama tunnel was commenced with boring by a level shaft near 30 m. 43 ch. The work, however, had to be given up at about 15 feet deep when some unknown gases of a poisonous nature made their appearance, with increasing force as the work advanced. Accordingly, several vartical shafts were sunk in the vicinity to ascertain the extent and character of the gaseous effusion, which was found on examination to be sulphuric hydrogen and that it formed a distinct zone across the site of tunnelling. In these circumstances the work had to be entirely given up and the contract for it to be relieved. The construction of the Narugo tunnel, on the other hand, proved easy on account of the stratal condition highly favourable for the work, making such a remarkable progress that excavation and masonry work was completed about 5 parts by the end of the year.

The work on the subsection between 31 m. and Sakaida was not yet taken in hand.

The erection of official residence at Narugo station was completed in May, 1913.

Purchase of the required land was finished about 6 parts.

Sakaida-Shinjo Section (mileage 12 m. 72 ch. 33 lin.; estimated cost or contracted price ¥370,730.256; work commenced October 18th, 1912). — The earthwork and others on the subsection between 46 m. 13 ch. and 51 m. 52 ch., continued from the preceding year, was completed about 5.3 parts on the average. The construction of the Semi tunnel was finished as regards boring, while widening and masonry works were still in progress. The erection of official residence in the compounds of Semi station was completed in April and September, 1913.

The earthwork and others on the subsection between 51 m. 62 ch. and 52 m. 5 ch. 38 lin. were completed about 5.7 parts on the average.

The work on the subsection between Mukaimachi and 46 m. 13 ch. from the Kogota starting point was not yet taken in hand.

Shinjo-Kiyokawa Section (mileage 19 m. 40 ch.; estimated cost or contracted price ¥2,711,172.876;

work commenced December 2nd, 1910). —The remainder construction work of the Mogamigawa bridge and the Itagakiyama tunnel were completed in December, 1913.

Completion was effected in October, 1913, after more than two years' laborious work for the subsection between 13 m. 60 ch. and 19 m. 40 ch. of which a portion of some 5 m. 50 ch. proved especially difficult, requiring altogether 9 tunnels to be bored through the precipices standing close upon the river Mogami.

The erection of main building at Furukuchi and Shinjo stations, both continued from the preceding year, were completed in October and November, respectively.

The plate-laying and erection of girders between Shinjo and Furukuchi were carried on side by side with earthwork and on their completion on December 7th, the section was opened for traffic.

Similar work between Furukuchi and Kiyokawa were simultaneously started from both ends with an expectation to bring them to completion early next year.

Kiyokawa-Sakata Section (mileage 15 m. 4 ch.; estimated cost or contracted price ¥440,894.542; work commenced November 7th, 1911).—Completion was effected in September, 1913, for the construction work on the section. Owing to the flat land no serious difficulties were experienced, though the erection of a retaining wall measuring some 27 feet and occupying about 940 *tsubo*, proved somewhat laborious work.

The earthwork and others on the subsection between 27 m. and 31 m., commenced in the year before last, was completed about 8 parts, leaving unfinished part of the earthwork and construction of No. 2 Mogamigawa bridge, which latter being the largest bridge on the section is feared to be a tough piece of work.

The remaining 4.3 parts of earthwork and others on another subsection, also continued from the year before last, was completed, it making a fair progress as the district traversed by the section was generally flat. The erection of main building at Karikawa station was completed in May and December, 1913, while a similar work at Amarume station was still in progress.

Purchase of the required land for the section was finished about 8.9 parts.

Sakata Goods Line — The construction of the present line was started in the preceding year and completed in September of the year under review.

Purchase of the required land was effected about 2.6 parts. The remaining portion being Government's property, its jurisdiction is now in process of transfer.

9. BOSO LINE.

(Ohara-Katsuura).

The work on the line was continued from the preceding year and completed in June when the line was opened for traffic.

10. HOJO LINE.

Kisarazu-Kazusaminato Section (mileage 15 m. 62 ch.; estimated cost or contracted price ¥872,091.678; work commenced December 1st, 1912). —The earthwork on the subsection between 19 m. 60 ch. and 25 m. 35 ch. and between 31 m. 60 ch. and 35 m. 60 ch. were finished about 9 parts, while a similar work between 25 m. 35 ch. and 31 m. 60 ch. was brought to completion. Purchase of the required land was also finished. The plate-laying, erection of girders and ballasting, started on the partial completion of the earthwork made no progrese worth mentioning.

The construction of main building at Aonori Onuki and Sanukimachi stations and connected works were taken in hand on November 15th, 1913, and completed about 2 parts by the end of the year. Similar works at Kazusaminato station commenced on January 25th, 1913, made no noteworthy progress on account of the insufficiency of time at disposal.

Kazusaminato-Hojo Section (mileage 17 m. 38 ch.)—Though purchase of the required land was finished, construction work was not yet taken in hand owing to an alteration made in the location of the line.

11. SAEKI LINE.

Oita-Kosaki Section (mileage 11 m. 71 ch. 41 lin.; estimated cost or contracted price ¥891,559.157; work commenced January 1, 1911).—The section was divided into two subsections and the works on both were started simultaneously and completed in August and November, 1913, respectively. Of the bridging works on the section, those on the Oitagawa and the Onogawa, the latter consisting of 42 spans of 70 ft. each, were most labourious. The work was facilitated by means of cranes and was completed toward the end of March, 1914. The provision of water supply appliances in the compound of Oita station carried on by the Railways on their own accounts was commenced in February and finished in October, 1913.

Kosaki-Usuki Section (mileage 2 m. 50 ch. 60 lin.; estimated cost or contracted price ¥891,559.157; work commenced January 12th, 1912).—Throughout the section altogether 5 tunnels had to be constructed, of which the boring of the Sashiu tunnel proved the most arduous work, as the entire strata thereabouts were composed of hard rocks. Moreover, a violent gush of water at the eastside entrance of the tunnel considerably hampered the progress of the work. It was solely due to the strenuous efforts on the part of labourers that by the end of the year some 8 parts of the work had been brought to completion. As for the other four, they all made fair progress except the boring of the Jinzan tunnel which was exceedingly difficult owing to the presence of frail strata.

The earthwork on the whole made progress as previously arranged. However, there was one small portion where cutting work could not be conducted as was originally prescribed, the stratal condition being such as to cause, on occasion of rainfall, the settling of earth by intrusion of water into the soil, of which the upper layer was composed of clayey earth and the lower part of crumbled sandstones with thin layer of clay lying between their sloping surfaces. In consequence, alteration was made in the slope of the cuttings. The construction of the Usuki bridge, the largest bridge on the section, made progress as prearranged and was completed during the year. To sum up, the work on the section was finished on an average 8.4 parts for earthwork, 8.6 parts for bridges and culverts, 7.6 parts for tunnels and 5.2 parts for masonry work.

Usuki-Saeki Section (mileage 4 m. 35 ch. 75 lin. 2; estimated cost or contracted price ¥1,042,978.730; work commenced January 16th, 1912)—The work on the section was also a labourious one, as it required the boring of as many as 22 tunnels aggregating 4 m. 36 ch. out of the total mileage of over 18 m. Apart from the mere number and length of tunnels to be constructed there existed other causes of difficulties chiefly in the shape of hard rocks, some of which were liable to a sudden collapse despite their seeming stability. The earthwork on the subsection between 14 m. 20 ch. and 15 m. was another case of difficult work, for a number of cracks began to appear on the surface of the cutting, while the work was still going on, so that certain alterations had to be made in its slope and dimensions.

Concrete work was carried out for retaining purpose to such parts of the line as was located particularly close by the seashore. The work made fair progress except near 25 m. 10 ch. where completion was not effected till December on account of blowing winds and rising waves which violent struck against the framework. However, the result being found not quite satisfactory, a further provision was made to effectively protect the track from these destroying forces of nature.

The construction of bridges except the Aoegawa, the Tsukumigawa and the Asamigawa bridge was a started during the year, all making fair progress.

To sum up, the work on the section was completed on an average 5.5 parts for earthwork, 5 parts for bridging, 8 parts for culverts, 5.2 parts for tunnelling and 3 parts for masonry work.

The erection of official residence at Saeki station was completed in August, 1913.

12. TOKUSHIMA LINE.

(Mileage 24 m. 73 ch.; estimated cost or contracted price ¥1,118,503.171, work commenced January 25th. 1912).—Earthwork, bridging, etc., started during the preceding year, were completed in September, while the erection of main building at Funado and 8 other stations and the provision of water tank and turntable at Ikeda station commenced during the year under review were finished in January. The line was opened for traffic on March 25th, 1913.

13. TADOTSU LINE.

(Tadotsu-Kannnonji)

(Mileage 16 m. 49 ch. 92 lin. 2; estimated cost or contracted price ¥730,935.000; work commenced October 16th, 1912)—Pitching was carried out for part of the cuttings to prevent the collapse of earthwork and diversion work, and thus the work could be conducted without interruption till the early part of October when the whole was brought to completion.

The work on the subsection between 4 m. 10 ch. and 11 m. 40 ch. made a due progress and was finished toward the end of August.

Cutting between 47 m, 6 ch. 70 lin. and 7 m. 10 ch. 0 lin. was taken up after making some alterations in the original plan on account of the presence of weak strata.

The construction of bridges was finished about the middle part of October. To provide against another occurrence of such a heavy flood as inflicted the serious damage on the Zaidagawa bridge, the piers of these bridges were sunk deeper down than originally prescribed.

The formation of underground road on the premises of Tadotsu and Kannonji stations were completed about the middle of December.

The erection of a provisional building for the Tadotsu Construction Office was taken up in succession to levelling work and was completed toward the end of October when the office was removed to the new building.

The construction of official residence at Tadotsu station. main building at Tadotsu, Kaiganji, Takuma, Kamitakase, Motoyama and Kannonji stations, provision of a water tank at Tadotsu and of the provisional Kannonji engine shed, were commenced about the same date and completed in December, 1913.

Plate-laying, ballasting, erection of girders, etc. were started from the Tadotsu end and finished in December when the section was opened for traffic.

14. SENDAI LINE.

Kagoshima-Ijuin Section (mileage 31 m. 3 ch.; estimated cost or contracted price ¥247,017.141; work commenced September 16th, 1910)—The work on the subsection between 3 m. 54 ch. and 6 m. 41 ch. from the Take starting point, continued from the year before last, was seriously hampered by the rainstorm that took place during the preceding year. Then the necessity to construct pitchings and revetment walls further retarded the progress of the work, while it involved the additional task of going again through the accomplished work inside the tunnel in consequence of falling of rocks, so that completion was not effected till as late as June, 1913. The parts of the tracks which were laid on weak soil were provided with cuttings, pitchings and walls to guard against damage from torrential rainfalls. These works were commenced in August and completed in the succeeding month.

Completion was effected in March, 1914, for remodelling of various provisions, laying of sidings and ballasting at Ijuin station carried on so as to bring the station in touch with the Nansatsu Railway Co.'s line.

Plate-laying and erection of bridge girders between Kagoshima and Ijuin, continued from the preceding year, was also completed.

Main building and official residence were built at Take, Manjuguchi and Ijuin stations.

Ijuin-Sendai Section (mileage 18 m.)—Piling work was carried out between 20 m. 6 ch. and 23 m. 50 ch. from the Kagoshima starting point for the purpose of strengthening the soil. Earthwork on the section made a speedy progress, while bridging work proved a labourious one, requiring no small amount of care for its undertaking. The work on the subsection between 23 m. 50 ch. and 27 m. 41 ch., continued from the preceding year, was not completed till October, the delay being mainly due to a sudden collapse of earth of some 6,000 *tsubo*, which took place when the work was on the verge of completion. Other causes also combined to retard it, such as additional construction of stone walls, absence of places for depositing excavated earth, etc.

The ground between 27 m. 41 ch. and 31 m. 3 ch. being mostly of yielding nature, the earthwork undertaken thereon proved easy. Bridging work, on the other hand, was troublesome, requiring no small amount of exertion, as the site was subject to visit of flood. By constructing a small station between Kibachaya and Sendaimachi stations, the work was facilitated and completion was effected as early as September, 1913, or 4 months earlier than the estimated time.

The construction of main and accessory building at Higashi-ichiki, Yunomoto, Nishi-ichiki, Kibachaya and Kumanojo stations was completed during the year, while main building and official residence, water tank, coal-stage and ash-pit at Sendai station and official residence at Kumanojo station was in process of construction at the end of the year.

On the completion of ballasting, plate-laying and other works in October and December 1913, respectively, the Kagoshima-Higashiichiki and the Higashi-ichiki-Kushikino section were opened for traffic.

The work on the Kushikino-Sendai section was nearing completion.

15 MIYAZAKI LINE.

Kobayashimachi-Miyakonojo Section (mileage 21 m. 10ch.)—Plate-laying, erection of girders for bridges and culverts carried out between 16 m. 74 ch. and 33 m. 7 ch. were completed in the early part of the year. The section was opened for traffic as far as Tanigashira on May 11th, 1913.

The bridging york was on the verge of completion when owing to the prevailing weakness of the ground, it was judged necessary to further strengthen the foundations of all the bridges by means of piling, grillaging and pitching and to enlarge the piers of the Yasunagagawa and the Shihidagawa bridge and the abutments and piers of the Yokoichigawa bridge. These works were much hampered by the existence of abundantly gushing water, so that they were not completed till as late as May 3rd, 1913.

The plate-laying and laying of girders undertaken in succession to earthwork were completed in October, 1913, and the subsection between Tanigashira-Miyakonojo was opened for traffic on 8th of the same month.

Main building, firemen's accommodation and various accessory buildings were erected at Miyakonojo Station.

Miyakonojo-Miyazaki Section (mileage, 31 m. 77 ch.; estimated cost or contracted price ¥2,185,422.714; work commenced April 22nd, 1910)—Purchase of the land required exclusively for construction works were finished on the acquisition of land in Kiyotake village. However, diversion of line between 54 m. 47 ch. and 64 m. 20 ch. made it necessary to make further purchase of land at Kiyotake and Tano villages, but this was not effected as yet.

The earthwork on the subsection between 38 m. 4 ch. and 45 m. 20 ch., continued from the preceding year, made satisfactory progress on account of the prevalence of white sandy earth highly favourable for the work. This circumstance, however, made bridging work a labourious one, requiring the provision of concrete piling for all the structures except the Iwashitagawa bridge. Especially hard was the construction of the Okimizugawa bridge at the site of which water gushed up from the gravel bed underlaid by sandy layer. Placed in a similar condition, the Kosai tunnel had to be provided with sidewalls and arches thicker than originally designed. The track embankment near the Okimizugawa bridge was protected with retaining walls built along its basis to provide against the destroying forces of floods. These works were carried on with assiduous efforts and on the completion of the work between 38 m. 4 ch. and 40 m. 58 ch. on February 11th. 1914. the Miyakonojo-Mitsumata subsection was opened for traffic.

The earthwork, bridging and other works were nearly completed. For the purpose of conveying materials for the works a single railway line was laid between 45 m. 20 ch. and 48 m. 20 ch. which was doubled later with a view to a speedier supply of materials. Since the greater part of the line was located along the river Aoidake, the base of the embankment was originally designed to be provided with shore protection walls. The scheme, however, was given up in favour of the removal of line toward left for the portion between 45 m. 20 ch. and 48 m. 20 ch. where the force of dashing current was too strong to be supported by such a provision. The construction of the Yamanokuchigawa bridge was at so advanced a stage that brick laying was already taken in hand in succession to concrete work for abutments, while for the other bridges, well-sinking work was still going on. The Hokugoto underground canal whose span was put at 15 ft. in the original designe, was lengthened to 18 feet, while the Inokawa and the Uchikawa bridge designed at 40 feet in length, were shortened to 30 feet, this entailing a certain lessening in the cubature of the abutments. The reconstruction of the Kawahira underdrains Nos. 1 and 2 into an underground canal and an open culvert, respectively, was completed except the wingwalls. The construction of the Yamanokuchi tunnels Nos. 1 and 7 was finished as regards the arches and the sidewalls, and the remaining portion consists of brick laying on the Miyazaki side for the former and a similar work as far as 2 ch. from the Miyazaki end for the latter. The boring of the Shikakume tunnel was not yet completed. To sum up, the work on the section was finished on an average 9 parts for underdrains, 8.1 parts for earthwork, 5.5 ports for bridges, 8.9 parts for tunnels and 6 parts for tunnels.

The work on the subsection between 48 m. 20 ch. and 52 m. 10 ch. was started with earthwork. Being mostly located through mountainous districts, the section had to be provided with a road for the conveyance of materials previous to the commencement of work, while a great deal of time was required for hiring labourers and gathering materials. Of bridging work those carried on south of Mt. Aoidake made good progress, especially as regards the construction of foundation ditches on account of absence practically of gushing water. On the other hand, north of the mountain the work did not make so speedy a progress. This was especially so with the building of the Sakaigawa bridge, where two sets of pumps were employed for the construction of foundation ditches to carry on a constant discharge of the water gushing up at the site of work. The boring of the Aoidake tunnel forming the most important work on the section was commenced simultaneously from both ends. As the work advanced 6 ch. deep from the east entrance the strata lapsed to weak condition with the additional disadvantage of the existence of gushing water in abundance due to the site being adjacent to the bed of the river Aoidake. No such obstacles, however, were met with for the rest of the work,the earth dealt with being composed of serpentine and sandy rocks and attended with little gushing water. These natural advantages, combined with a thorough care taken for excavation and minute attention to the mode of ventilation, greatly expedited the work, showing the progress of 3.5 *shaku* per day. Masonry work at the west

entrance was taken up in November, 1913, while at the east entrance it was commenced two months later. The soil being mostly composed of hard rocks, a vertical shaft 150 feet deep was decided to be sunk at 17 ch. 10 lin. from the east entrance and at 21 ch. 45 lin. from the west. It is expected that the work will make a better progress when the shafting gets completed. To sum up, the work on the subsection was completed 4.8 parts for earthwork, 1.8 parts for bridges, 3.9 parts for culverts, 5.5 ports for underdrains and 2.2 parts for tunnels.

The earthwork on the subsection between 64 m. 20 ch. and 70 m. 1 ch., continued from the preceding year, was finished except the levelling work at Kiyotake station and the cutting work at the Miyazaki approaches to the Kiyotake tunnel. The construction of a series of embankments on the left side of the track between Akae station and the vicinity of Miyazaki station carried out to cope with the high water level of the river Oyodo made a substantial progress in spite of the fact that earth for the construction had to be fetched from a place half a mile distant.

Bridging work was completed excepting the abutments of the Oyodogawa, the Ushirodagawa bridge on the Yoshimatsu side, and Nos. 1 and 2 piers of the Kiyotakegawa bridge. Well-sinking and brick-laying for the Oyodogawa bridge was finished during the year, while the erection of abutments started in July, 1912, was making but a tardy progress in consequence of the intrusion into the coffer-dam of river water containing sands and earth driven by the periodical movements of the tide. With a view to strengthening the foundation of the Ushigawa bridge, additional piling was carried out, while its wingwalls were provided with concrete piling. The formation of brick and concrete inverts inside the Kiyotake tunnel from the Miyazaki entrance to the middle part made due progress and only some 10 feet at the entrance remains incomplete. The cuttings on the subsection were given an easier slope in view of the weakness of the soil, this entailing an enlargement of the wall at the entrance. The enlargement work was followed by the construction of foundation ditches carried on as an accessory work at the Miyazaki entrance, while at the Yoshimatsu entrance the principal work was not yet completed. The construction of culverts and underdrains were finished except part of the wingwall. To sum up, the work on the subsection was completed on the average 8 parts for earthwork, 9.5 parts for tunnels and 9 parts for station buildings.

The plate-laying on the subsection between 38 m. 15 ch. and 40 m. 58 ch. and the laying of sidings at Mimata station were started in September and completed in December. The erection of bridges and culverts taken in hand in January, 1913, was finished in February of the succeeding year.

The plate-laying on the subsection between 69 m. 45 ch. and 70 m. 1 ch. and the laying of sidings at Miyazaki station were started in October and completed in December. Ballasting was also carried out during the same period.

16. SOYA LINE.

Sakkuru-Shotombetsu Section (mileage 10 m. 55 ch. 41 lin. 3; estimated cost or contracted price ¥852,982.950; work commenced May 1st, 1912).— The earthwork, bridging, ballasting, etc. on the subsection between 80 m. 47 ch. and 86 m. 0 ch., continued from the preceeding year, were completed about 7 parts, while similar works on the subsection between 86 m. 0 ch. and 90 m. 4 ch. 43 lin. 3, also continued from the preceding year, were finished some 8 parts.

The construction of the Tenhoku tunnel measuring above 1,233 feet in length on the borders between Kitami and Teshio Provinces was nearly completed. Owing to the prevalence of frail soil and a heavy pressure produced by it, the progress of work was seriously fettered, while in the conveyance of brick and cement the total absence of roads demanded the additional task of running work trains during the milder seasons and driving horse sledges in winter.

It was contemplated to erect a station near 90 m. from the mark station in respon e to the growing demand of the district, but in view of the local condition during the year which required an immediate realisation of the scheme, it was decided to take it up as a matter of most urgent need. Accordingly, earthwork, provision of platforms, etc. were at once proceeded with as the first step toward its construction.

Shotombetsu-Chutombetsu Section — The line starts from 90 m. 4 ch. 43 lin. 3 from the Asahigawa mark station and terminates at 103 m. 30 ch. from the same mark station, a distance of 13 m. 36 ch. 20 lin. 9. At the outset the line proceeds east, keeping along the left bank of the river Tombetsu. Then it crosses the river Horotsuta and once more approaches the Tombetsu, after crossing which at 90 m. 27 ch. the line runs parallel to the river, this time along the left bank. Further on, several more rivers are crossed such as the Shinoda, the Numa, the Chikuma and the Futago before it reaches 93 m. 9 ch. where Kamitombetsu station is to be located. Then crossing the rivers Noji, the Shirotae, the Asae and the Yabashiri, the line meets for the third time the river Tombetsu which is crossed at about 95 m. 39 ch. Then crossing the Tombetsu twice more, it runs across the rivers Wakatombetsu, the Fukutombetsu and the Kirifuri, and reaches 97 m. 9 ch. where is planned Toshiotochi station. Further on serveral other rivers are crossed, including among others the river Shotombetsu which is crossed for the last time at 99 m. 26 ch. Leaving Matsutochi station located at 101 m. 46 ch., the line runs across the rivers Konoha, the Chuembetsu and the Chikomanai and finally reaches the terminus. The ruling gradient of the line is 1 in 100 with the sharpest curve of 15 ch. radius.

The construction work on the section was not yet started excepting works for those parts of the line which are to be carried on in connection with the erection of Shotombetsu station.

17. SHIMOFURANO LINE.

(Takikawa-Shimofurano)

(Mileage 35 m. 63 ch.; estimated cost or contracted price ¥852,982.950; work commenced May 1st, 1912).

Various minor works were taken in hand in succession to plate-laying, erection of station buildings, earthwork, etc. on the Takikawa-Shimoashibetsu subsection which were nearing completion at the end of the year, they comprising repair to embankments and cuttings, additions to the retaining walls, erection of various buildings accessory to stations and official residences. The construction of Nos. 5 and 6 bridges over the river Sorachigawa was taken up in September, 1912, and completed in December, 1913, during which period the work was incessantly carried on even through the most inclement weather in winter, taking

advantage of the total absence of the river water. Owing to the fact that these bridges were to be built at those parts of the river where it pursues a most circuitous course, their construction proved most difficult. This was especially the case with No. 5 bridge at the site of which the force of the current was so strong that the formation level of the bridge had to be raised as high as 77 feet above the river bed. At No. 6 the topographical condition being far milder, an altitude of 40 feet was adopted.

The erection of main building and official residence at Yakanami, Hommojiri and Shimanoshita stations and the installation of interlockings and signals, plate-laying and ballasting were completed in November, 1913, when the section was opened for traffic.

18. NEMURO LINE.

(Kushiro-Akkeshi)

(Mileage, 29 m. 25 ch.)—The earthwork and others on the line was postponed. The purchase of the required land was nearly finished as far as 8 m. 43 ch. The law for expropriation of land is to be enforced upon the remaining portion yet unacquired owing to disagreement as to terms of purchase.

19. LIGHT RAILWAYS.

(1) MOKA LINE.

(Moka-Nanai)

(Mileage 7 m. 17 ch. 85 lin.; estimated cost or contracted price ¥228,678.172; work commenced December 5th, 1912 and completed July 10th, 1913). The work on the section continued from the preceding year was completed in June. The section was opened for traffic next month.

(2) NAGAI LINE.

Akayu-Ringo Section (mileage 5 m.; estimated cost or contracted price ¥227,677,075; work commenced June 17th, 1912 and completed October 19th, 1913) —On the completion of the earthwork and others, continued from the preceding year, plate-laying, ballasting, bridging and erection of main and other buildings were started, and on their completion in October the section was opened for traffic.

Ringo-Nagai Section (mileage 6 m. 50 ch.; estimated cost or contracted price ¥182,471.517; work commenced October 13th, 1912)—The earthwork and others on the section continued from the preceding year was seriously retarded by a flood in August, so that their completion was not effected within the year, leaving some 2 parts for next year.

(3) FUNAKAWA LINE.

Oiwake-Wakimoto Section (mileage 12 m.; estimated cost or contracted price ¥180,901.800; work commenced April 24th, 1912)—The purchase of the required land was finished. Plate-laying and ballasting were taken up in succession to the earthwork and others, as also were the installation of signals at Oiwake station and erection of main building at another station, and on their completion the section was opened for traffic on November 9th, 1913. Though the earthwork and others on the subsection between 8 m. 20 ch. and 12 m. had been estimated to be finished within the year, about 2 parts were left incomplete at the end of the year in consequence of temporary suspension of work pending the negotiations with the local government as to the construction of the Hachirogawa bridge and the formality to be gone through in donating the required land to the Railways by its owners.

The erection of provisional storerooms for cement and storemen's cabin were carried out.

Wakimoto-Funakawa Section (mileage 4 m. 59 ch.; estimated cost or cost of construction contracted price ¥909.140; work commenced May 21st, 1913 and completed March 30th, 1914)—Starting from the Oiwake starting point the line proceeds straight, intersecting a small road which leads to Funakawa via Kitaura. At Tayasawa the line makes a gradual descent, and turning right it passses through the Ojika tunnel on the borders between the villages of Funakawaminato and Wakimoto, and making a descent turns left and keeps along the mountain foot till it reaches 14 m. 62 ch. where Hadachi station is to be located. A little beyond, the line intersects a light railway line worked by the Akita Forestry Bureau for the conveyance of timber, and after crossing a hill it emerges upon the seashore. Here the line intersects another light railway line worked under the management of Akita Prefecture and proceeds along the coast which is protected with embankments beyond 50 m. 60 ch. Thenceforward the line pursues a south western direction till it reaches a reclaimed land whereon at 16 m. 26 ch. 62 lin. Funakawa station is planned. Laid through hilly districts, the line naturally abounds in turns and bends. The ruling gradient is 1 in 70 with the sharpest curve of 15 ch. radius.

The reclamation work to be undertaken for the length of about half a mile is expected to offer no serious difficulties.

Working survey of the section was finished, while land purchase was completed about 7 parts. As most of the construction works on the section was programmed to commence next year, the work undertaken during the year under review merely consisted of some minor affairs such as removal and reconstruction of temporary storerooms, temporary quarters, etc. between Oiwake and Futada.

(4) MIYACHI LINE.

Kumamoto-Otsu Section (mileage 14 m. 10 ch.; estimated cost or contracted price ¥291,841.084; work commenced September 8th, 1912).—Completion was effected for the earthwork and erection of main building and official residence at Harutake, Suizenji, Awadaguchi, Otsu and Sanrigi stations continued from

the preceding year, while plate-laying and erection of bridge girders undertaken by the Railways on their own account were finished about 5 parts.

Otsu-Akamizu Section—The section starts from the east end of Otsu station, 14 m. 10 ch. from the starting point and terminates at Akamizu station, a distance of 11 m. 1 ch. 52 lin. At the outset the line proceeds along the southern boundary of Otsu town and turning right crosses a river on the Hikimizu bridge. Then turning to the right and then to the left, the line enters Seta village by way of Jinnai and crossing the river Fudo it makes an eminence whereon Seta station is to be located. Thenceforward the line makes ascent in a gradient of 1 in 30 and crossing the Warihori bridge intersects the Oita road. After crossing the same road twice more, it proceeds along hillside and crosses the Oita road as many as four times more before it reaches where Tateno station is to be located. Then the line turns back, proceeding up a hillside about half a mile, and making a second turning crosses the Shinsho and the Tateno bridge. Further on the line turns left, runs north, and passing through the Tateno tunnel crosses the river Kurokawa before it enters Choyo village where Akamizu station is planned on a plain. The ruling gradient of the line is 1 in 30 with the sharpest curve of 10 ch. radius.

Though working survey was finished in March of the preceding year, construction work was not started as yet.

(5) INUKAI LINE.

Oita-Nakahanda Section (mileage 5 m. 56 ch.; estimated cost or contracted price ¥161,865.148; work commenced December 12th, 1912 and completed March 31st, 1914)—The construction work on the section was started in the preceding year. The earthwork was completed in December, 1913, and the erection of main buildings and official residence in February, 1914. The plate-laying and ballasting taken up in October, 1913, in succession to the earthwork, was finished towards the end of the year. Various works undertaken by the Railways on their own account preparatory for opening the section for traffic were also finished on the same date. With a view to secure safety in operation of trains, at Shimogori, 75 ch. from the Oita starting point, a junction station with accessory buildings and official residence was provided, its construction being completed in March, 1914. The installation of interlockings and signals by the Railways on their own account was finished toward the end of the year when the section was opened for traffic.

Nakahanda-Inukai Section—About 9 parts of the work on the section left incomplete at the end of the year was taken up and finished in September when the section was opened for traffic.

(6) KAMIISO LINE.

The work on the line was started in October of the preceding year and completed in September of the year under review when the line was opened for traffic.

(7) YUBETSU LINE.

Rubeshibe-Shimoikutahara Section (mileage 20 m. 7 ch.; estimated cost or contracted price ¥568,738.600; work commenced February 25th, 1912)—The earthwork and bridging between Rubeshibe and Tokomon tunnel was nearly completed during the preceding year and the works carried on during the year under review comprised brick work for arches and sidewalls of the Tokomon tunnel of which the former was finished while the latter was on the verge of completion at the end of the year.

The earthwork, bridging, etc. between the Tokomon tunnel and Shimoikutahara were taken up with the advent of the thaw. As the work was of minor scope, the use of wood for abutments and piers instead of iron greatly facilitated the work, so that completion was effected in as early as September, 1913.

Shimoikutahara-Shimoashibetsu Section—The line starts from 34 m. 30 ch. from Nokkeushi station and terminates at 52 m. 45 ch., a distance of 17 m. 57 ch. 30 lin. At the outset the line proceeds north, and crossing the rivers Ikuno, the Samba and the Shimowakibetsu arrives where Togaru station is planned. Then keeping away from the districts subject to visit of floods, it runs along the foots of hills and then across a flat eminence before it crosses the river Sanabuchi beyond which Sanabuchi station is planned. After crossing the river Wakibetsu the line wends its way along the foots of hills keeping close to the river, on leaving which it approaches the river Nuppokomanai beyond which Kamiwakibetsu station is to be located. Thenceforward the line proceeds straight across a plain and crosses the river Kamiwakibetsu twice before it reaches 49 m. 29 ch. where is planned Nakawakibetsu station. Further on the line intersects the imaginary prefectural road, crosses the river Kamo and finally reaches Shimowakibetsu station. The ruling gradient of the line is 1 in 100 with the sharpest curve of 15 ch. radius.

A portion of the required land was contributed by its possessor, but the rest remains still unacquired.

(8) MANJI LINE.

(Shibun-Manji)

Takinokami-Manji Section starts from 7 m. from the Shibun mark station and terminates at 14 m. 74 ch. from the same mark station, a distance of 7 m. 49 ch. 3 lin. 3. Immediately after its start the line intersects the Manji road and runs toward the hills standing close to the river Horomuku. Thenceforward the line runs parallel to the Manji road, laying an arch culvert at Asahizawa and crossing the river Horomuku at 8 m. 12 ch. Further on the line crosses the rivulets of Shimoichinosawa and Ninosawa, approaches the river Horomuku and lays two arch culverts before it reaches 9 m. 60 ch. where Miruto station is to be located. At 10 m. 35 ch. the line crosses the river Horomuku and proceeds across a plain as far as 11 m. whence it runs parallel to the Manji road. Then passing along a steep precipice standing on the Horomuku, it crosses

the river Hirahatsu. As it reaches 13 m., the river suddenly becomes narrow with a range of precipices closely standing on either side. Accordingly this part of the section required a good deal of earthworks and masonry works of a most labourious nature. After crossing several small streams and the river Ponhoromuki the line reaches 14 m. 6 ch. where Manji station is to be located. Leaving the station the line further proceeds along the left bank of the river Horomuku some 70 ch. when it reaches Manji colliery goods station, a little beyond which the line reaches the terminus.

Working survey of the line was completed in August, 1913. The purchase of the required land commenced in March, 1913, was finished about 8 parts.

The earthwork, bridging, etc. on the subsection between 0 m. 7 m. and between 7 m. and 12 m. were taken in hand in April and August, respectively. There being no labourious work except the construction of 6 bridges over the Horomuku, the work made so rapid a progress that completion was effected at the end of the year as much as 9 parts for the former and 6 parts for the latter.

Though the construction work on the subsection between 12 m. and the terminus was taken up in January, 1914, snowfall and the severe cold prevented it from being carried on except part of the earthwork and diversion of rivers and drains.

With a view to opening the section for traffic during next year, special exertion was made in earthwork on the track. For the purpose of conveying materials for construction, provisional lines were laid on No. 4 Horomukugawa bridge and at two other places and additional lines were constructed as far as some 10 m. from the terminus.

Official residence and accommodation for employees were constructed on the premises of Shibun and Kamishibun stations.

CHAPTER VII.

WORKS ARRANGEMENTS AND PROVISIONS FOR ROLLING STOCK.

(1) WORKS ARRANGEMENTS.

In consequence of the general reorganization of the Imperial Government Railways in May, 1913, the Works in the jurisdictian of the different Divisions were brought under direct control of the Technical Department of the Head Office.

At the end of the year under review there were 24 Works in operation, consisting of 17 main and 7 branch Works. Besides, five plants were provided at different places in order to attend, each in its sphere of charge, to the prompt repair of vehicles.

During the year under review 2,456 locomotives, 9409 passenger carriages and 82,690 goods wagons were repaired, and 91 carriages, 14 electric trams, 671 wagons, and 4 snow ploughs made, while the erection of 54 locomotives, purchased from abroad, was effected.

The total output of the workshops amounted to 9,841,103 yen in value, of which 78 per cent. were claimed by the repair and reconstruction of vehicles and 22 per cent. by the manufacture of vehicles and other railway appliances.

The rolls of the different Works on March 31st, 1914 comprised 14,664 workmen and 1,254 labourers of regular employ, and the amount of wages paid to them during the year totalled 3,512,294 yen, of which 827,186 yen were represented by piece work.

There were 4,002 sets of machinery in service at the various Works, of which 244 sets were newly installed during the year, while 30 sets were transplanted to engine-houses and other places and 31 sets scrapped.

The following is the more important provisions made at the different Works:—

O-i Works.—The construction of the Works, started in 1911, was finished in parts and opened in August for the repair of goods wagons. Upon the completion of the Works, the repair of vehicles undertaken hitherto at the Shimbashi Works will be transferred thereto. New sawmill and wagon repair shop completed and the laying of side tracks and 'links' finished; smithy, provisional lathe shop and office rooms erected; the construction of new carriage shop started.

Hamamatsu Works.—The Works, started in 1910, were nearly finished during the year, and all the equipment for locomotive repair work at the Shimbashi Works was transplanted thereto, it being arranged to attend exclusively to the repair of engines. New boiler and casting shops erected; locomotive weigh-bridge provided; earthwork, bridging and platelaying finished on the 'links'; installation of electric machinery and crane effected.

Nagano Works.—Erection of new boiler shop started; purchase of electro-worked crane effected.

Kanazawa Works.—Paint shop, started in the preceding year, brought to completion.

Takatori Works.—Pursuant to the scheme of transferring thereto all the equipment of the Kobe Works as a preliminary step to the final merging of the two contiguous Works, the enlargement of this Works was started in 1912, and it is expected that the provision of the Works will be completed in the next year, with the sole exception of boiler shop equipment. Locomotive weigh-bridge, workmen's accommodation and class rooms for apprentices finished; erecting and lathe shops built; smithy transplanted and enlarged; new air-compressor room provided; the laying of additional tracks commenced.

Kokura Works.—The enlargement of the Works was started in 1912, and is expected to be brought to finish shortly. Upon completion, it will form the principal Works in the Island of Kyushu, leaving the Wakamatsu Branch and the Yukuhashi Works with the sole task of repairing carriages and wagons. New smithy finished; a start made with the erection of new boiler shop and the laying of additional tracks.

Wakamatsu Branch Works.—Purchase of land for the projected new site of the Works effected.

Sapporo Works.—With the idea of creating the

principal Works in Hokkaido, the enlargement of this Works was started in 1912, and it is expected to be ready for service in the next year, with the exception of the smithy. It is also arranged that the locomotive repair equipment at the Iwamizawa and the Temiya Branch Works will be transferred thereto in the near future. New erecting and lathe shops completed; the construction of new boiler and lathe shops started; electro-worked crane purchased and installed.

(2) IMPROVEMENTS AND PROVISIONS FOR ROLLING STOCK.

(a) Locomotives.

The continual growth in train load and the consequent call for greater tractive power has tended to increase the weight of locomotives, and the engines placed in service since 1910 have generally become heavier than ever, weighing between 45 tons and 60 tons.

The saturated steam design had hitherto been exclusively adopted for the locomotives in our Railways, but in the construction of new locomotives it was abandoned for the superheated one,the relative efficiency of the latter type engines being proved lately so far as regards enhancing of boiler capacity and economising of consumption of fuel. It is satisfactory to note that this innovation has been justified by the practical results of working, which often show an increase of about 80 per cent. in tractive effect and a saving of over 30 per cent. in fuel consumption.

During the year 16 locomotives had the normal pressure of their boilers increased, seven of them also getting their cylinders shortened in diametre.

The following shows the items of various improvements and provisions made in locomotives:—

Improvements in	No. of locos	Cost
		yen
Boilers	96	16,658
Accessories of boilers and tubes	708	8,965
Cylinders and accessories	26	1,650
Valves and accessories	37	2,763
Caps	42	5,417
Tenders	33	4,191
Axles and axle-boxes	15	4,043
Springs	12	1,370
Draw-bars	16	3,522
Brakes	64	8,916
Steamheaters	133	3,000
2500 type converted into 2700 type	3	6,727

(b) Passenger Carriages.

Whereas the carriages in stock had mostly been of 4-wheel type, this design was abandoned for 4-wheel bogie and 6-wheel bogie types for new carriages made since 1910, with a view to better coping with the demand for increased speed and more comfortable accommodation.

The length of new 4-wheel bogie measures 55½ feet and that of the 6-wheel bogie 66 feet, as against 26 feet of the ordinary 4-wheel vehicle. A corresponding gain was effected in the width and height of the new bogies which are now practically of the same dimensions as those in use on British railways, though not so large as those of America and Continental countries. Thus the new bogies have achieved a marked improvement in passenger accommodation, but this advantage has inevitably resulted in no small increase in the dead weight of the vehicle.

During the year one observation parlour and two first class sleeping carriages of superior quality were made and put in commission for the limited express train service inaugurated on the Shimbashi-Shimonoseki line in 1912.

Two of the new 1st class sleeping carriages with smoking rooms have this distinction, that the partition between sleeping berths are so contrived as to be removable at pleasure, besides being provided with a separate wash-stand for each compartment.

A number of carriages of superior class, which were found of relatively small service were reconstructed into inferior class vehicles.

The following improvements were made on carriages during the year:—

Improvements in	No. of vehicles.	Cost
		yen
Improvements in and provisions for car body and its interior	230	41,576
Axles and axle-boxes remodelled	1	124
Brakes provided	136	9,397
Steam heaters provided	271	21,926
Electric lamps fitted	215	21,629
Gas lighting provided	272	46,530
Vehicle type improved	117	24,891
Electric trams improved	22	23,095

(c) Goods Wagons.

In view of the satisfactory results shown by Russel's snow-ploughs employed on the Hokkaido lines since 1911, 4 vehicles of the same kind were newly placed in service on the Shin-Etsu and the O-U line.

In order to meet the requirements for growing traffic in fresh fish, 130 refrigerator cars were added to the list during the year.

376 thirteen-ton iron coal hopper wagons were newly constructed. They were designed specially for the Tobatake Coaling Stage in Kyushu. Compared with the ordinary coal trucks hitherto in use on the Kyushu lines, the new vehicles are greater in capacity by about 50 per cent. and of much more solid structure. It is expected that with their adoption no small saving of labour and cost in transport will be ensured.

A number of 24 ton bogie coal trucks, designed to meet the requirements of the coaling Piers at Muroran and Temiya, were also made during the year and placed in service. They are so contrived that directly upon the opening of their lower sides, the contents of the vehicles may deposit themselves automatically. While this contrivance will do much to facilitate coaling work, the vehicles are so strong in structure that they are entirely free from the danger of breaking down en route as ordinary open coal trucks are liable to. Another advantage is that they are relatively small in dimensions, considering their enormous capacity.

The standardization of axles was carried out in 1,706 wagons.

523 coal trucks were reconstructed into those of larger capacity, the total increase of capacity so effected being 1,534 tons.

The remodelling of hand and side brakes and the improvement of automatic couplers, continued from the preceding year, were carried out for a large number of vehicles. The details are shown below.—

Improvements in		No. of vehicles	Cost
			yen
Vehicles	Covered	13	1,474
	Open	138	27,609
	Coal trucks	523	74,472
Axles and axle boxes		1,706	215,761
Draw-bars		445	24,239
Brakes		876	30,746
Lamps of snow-plow		1	246

(3) ROLLING STOCK ADDED TO AND STRUCK OFF THE LIST.

Whereas the Railways had hitherto been soley dependent upon foreign manufacturers for the supply of locomotive stock, it was decided to supersede this policy of foreign purchase by that of domestic supply, Japanese makers having made sufficient progress to satisfy all the requirements in this direction both as regards capacity and workmanship.

During the year 66 locomotives were made at home as against 54 purchased from abroad.

It is also gratifying to note that Japan has finally attained a state of self-sufficiency as to the supply of vehicles. The new stock for the year, 254 carriages and 2,213 wagons in total, was wholly made by demestic manufacturers with the sole exception of one snow-plough.

Of the vehicles struck off the list, the bogie carriages were damaged by accident, while the 4-wheel carriages were mostly rendered unserviceable through wear and tear.

528 four-wheeled bogies (small type) in use on the Hokkaido lines were scrapped on account of their deterioration, it being now decided to withdraw vehicles of this type from the service gradually.

The following are the particulars of the rolling stock added to the list during the year:—

(a) Locomotives.

6-wheel coupled tank (for narrow-gauge light rly)	4
10-wheel coupled superheated tank	15
4-wheel coupled superheated tender	6
6-wheel coupled tender	15
6-wheel coupled superheated tender	12
8-wheel coupled superheated tender	18
Mallet type 6-wheel coupled compound superheated tender	50
Total...	**120**

(b) Carriages.

6-wheel bogie observation parlour	1
do. 1st class sleeping	2
do. 1st class sleeping with smoking room	2
do. 2nd class cars	2
do. 2nd class sleeping	4
do. 2nd class dining with smoking room	4
do. 2nd and 3rd class composite	4
do. 3rd class cars	10
do. 3rd class and brake vans.	8
do. luggage and brake vans	5
do. luggage and brake vans with servants' compartment	3
4-wheel bogie 2nd class cars with 1st class sleeping berths	13
do. 1st and 2nd class composite	40
do. 2nd class dining with smoking room	4
do. 2nd class and brake vans	5
do. 2nd and 3rd class composite	6
do. 2nd and 3rd class and brake vans	23
do. 3rd class cars	57
do. 3rd class and brake vans	78
do. 3rd class and luggage and brake vans	34
do. 3rd class and postal, luggage and brake vans	9

4-wheel	luggage and brake vans	6
do.	postal, luggage and brake vans	8
do.	steam motor cars	10
do.	electric trams	14
do.	2nd and 3rd class with hand brake (narrow gauge light rly).	4
do.	3rd class with hand brake (do.)	4
do.	3rd class and luggage and brake vans (do.)	2
	Total	**362**

(c) Goods Wagons.

4-wheel	bogie snow-ploughs	5
do.	wagons for goods of bulky weight	5
do.	open trucks serving as timber trucks	29
do.	timber trucks	65
do.	iron-built coal trucks	195
do.	covered brake vans (for narrow gauge light rly)	3
do.	covered wagons (do.)	7
do.	open trucks (do.)	40
do.	ballast wagons (do.)	40
4-wheel	covered brake vans	410
do.	covered wagons	66
do.	covered wagons with hand brake	755
do.	iron-built covered wagons	80
do.	refrigerator cars	130
do.	gas holders	10
do.	gas holders fitted with pressing engine	5
do.	open trucks	671
do.	iron-built coal hopper wagons	284
do.	iron-built coal truck with hand brake	92
	Total	**2,892**

The following carriages were scrapped during the year:—

6-wheel	bogie 2nd class with 1st class sleeping berths	1
4-wheel	bogie 3rd class	1
do.	3rd class and brake vans	3
do.	postal, luggage and brake vans	1
do.	luggage and brake van	1
4-wheel	3rd class cars	8
do.	3rd class with hand brake	1
do.	3rd class, luggage and brake van	1
4-wheel	3rd class brake van	1
do.	luggage and brake van	1
4-wheel	bogie open trucks	531
do.	covered wagons	33
do.	covered brake vans	6
do.	timber truck	1
4-wheel	covered wagons	62
do.	covered brake vans	18
do.	snow-plows	10
do.	open trucks	16
do.	open trucks with hand brake	10
do.	open brake vans	1
do.	ballast trucks	3
do.	ballast truck and brake van	1
do.	ballast truck with hand brake	1
do.	timber truck	1
	Total	**713**

The following locomotives and vehicles were given over by transfer during the year:—

4-wheel coupled tank engine...	1
6-wheel coupled tank engine...	8
4-wheel coupled tender engine	2
4-wheel 2nd class cars	6
do. 2nd and 3rd class composite	1
do. 3rd class cars	43
do. 3rd class and brake van	1
do. 3rd class with hand brakes	5
do. 3rd class and luggage and brake vans	2
do. luggage and brake vans	2
4-wheel covered wagon	1
do. ballast trucks	11
do. coal hopper wagons...	45
Total...	**128**

(4) INVENTORY OF ROLLING STOCK.

(a) Locomotives in Stock at the end of the Year.

Class			No.	Tonnage	Inc. or dec. (△) against preceding year
Tank engines	4-wheel coupled	4-wheels	30	640.55	△ 1
		6-wheels	9	215.80	—
		8-wheels	259	9,489.42	△ 1
		Total	298	10,345.77	△ 2
	6-wheel coupled	6-wheels	198	6,610.47	△ 2
		8-wheels	499	23,048.11	△ 1
		10-wheels	187	8,797.16	8
		12-wheels	15	841.13	—
		Total	899	39,296.87	5
	8-wheels		5	199.12	—
	10-wheels		19	1,210.55	15
	Abt 6-wheel coupled	6-wheels	7	260.80	—
		8-wheels	2	106.66	—
		10-wheels	16	913.60	—
		Total	25	1,281.06	—
	Mallet 4-wheel coupled 8-wheels		2	85.45	—
	Total		**1,248**	**52,418.82**	**18**
Tender engines	4-wheel coupled	6-wheels	2	85.40	—
		8-wheels	574	31,780.14	6
		10-wheels	24	1,715.67	—
		Total	600	33,581.21	6
	6-wheel coupled	6-wheels	8	257.24	—
		8-wheels	278	16,245.18	—
		10-wheels	66	5,655.60	27
		12-wheels	36	3,642.12	
		Total	388	25,800.14	27
	8-wheel coupled	10-wheels	172	12,788.82	18
		12-wheels	20	1,606.30	—
		Total	192	14,395.12	18
	Mallet	4-wheel coupled 10 wheels...	6	549.82	—
		6-wheel coupled 12 wheels...	54	5,078.54	50
		Total	60	5,628.36	50
	Total		**1,240**	**79,404.83**	**101**
6-wheel coupled electric locomotives			12	510.00	—
Grand Total			**2,500**	**132,333.65**	**119**
Ratio per ten open miles			4.6	—	—

(b) Passenger Carriages in Stock at the end of the Year.

Class	6-wheel bogie	4-wheel bogie	4-wheel	4-wheel bogie for light rly.	Total	Inc. or dec. (△) against preceding year
Inspection car	—	—	2	—	2	—
Service car	—	—	6	—	6	1
do. for material supply	—	—	5	—	5	5
Private cars	4	5	3	—	12	—
Observation parlours	6	—	—	—	6	1
Sleeping cars	—	2	—	—	2	△ 8
1st class speeping	2	—	—	—	2	2
1st class sleeping with smoking rooms	21	—	—	—	21	9
1st class sleeping with private rooms	5	—	—	—	5	—
do. with hand brake	1	—	—	—	1	1
1st class sleeping and dining	17	—	—	—	17	△ 3
2nd class with 1st class sleeping berths	15	15	—	—	30	15
2nd class with 1st class sleeping berths and caterer's vans	—	6	—	—	6	—
Dining cars	1	4	—	—	5	—
Dining with smoking rooms	8	3	—	—	11	—
Dining with private rooms	3	—	—	—	3	—
Dining for Japanese meal	3	1	—	—	4	—
1st class dining	8	6	—	—	14	—
3rd class dining for Japanese meal	—	3	—	—	3	—
1st class cars	10	1	64	—	75	26
1st class with private rooms	3	—	—	—	3	—
1st class with hand brakes	1	2	2	—	5	—
1st and 2nd class composite	19	159	124	—	302	△ 66
1st and 2nd class composite with private rooms	4	—	—	—	4	—
1st and 2nd class composite with hand brakes	—	11	—	—	11	△ 6
1st and 2nd class and brake van	—	1	—	—	1	△ 1
1st and 2nd class sleeping and brake van	—	4	—	—	4	—
1st and 3rd class composite	—	3	—	—	3	—
2nd class cars	41	57	515	—	613	89
2nd class sleeping	23	—	—	—	23	4
2nd class sleeping with smoking rooms	4	—	—	—	4	△ 4
2nd class sleeping with smoking and brake vans	4	—	—	—	4	△ 4
2nd class dining	8	—	—	—	8	4
2nd class dining for Japanese meal	3	—	—	—	3	3
2nd class dining for foreign and Japanese meal	3	—	—	—	3	1
2nd class dining with smoking rooms	13	4	—	—	17	8
2nd class and brake van	12	28	—	—	40	5
2nd class with hand brakes	1	30	8	—	39	3
2nd and 3rd class composite	15	67	80	—	162	30
2nd and 3rd class composite with hand brakes	—	35	15	4	54	4
2nd and 3rd class and brake van	8	45	2	—	55	25
2nd and 3rd class and luggage and brake van	—	4	1	—	5	—
Electric trams with luggage rooms	—	3	6	—	9	—
Electric trams	—	47	30	—	77	14
Steam motor cars	—	22	—	—	22	10
3rd class cars	69	435	1,475	—	1,979	△ 10
3rd class with vender's rooms	—	8	—	—	8	8
3rd class and brake vans	31	340	733	—	1,104	134
3rd class with hand brakes	—	80	709	4	293	△ 8
3rd class and postal vans	—	—	5	—	5	△ 12
3rd class and postal vans with hand brakes	—	7	16	—	23	—
3rd class and postal and brake vans	1	22	22	—	45	5
3rd class postal, luggage and brake vans	—	17	5	—	22	4
3rd class and luggage and brake vans	15	148	138	2	303	32
Postal vans	—	—	38	—	38	△ 2
Postal and brake vans	9	23	32	—	64	7
Postal vans with hand brakes	3	3	11	—	17	△ 2
Postal, luggage and brake vans	6	70	215	—	291	21
Luggage and brake vans	19	58	434	—	511	4
Luggage and brake vans with servants' rooms	6	—	—	—	6	6
Storage battery cars	—	—	37	—	37	—
Ambulance cars	—	—	2	—	2	2
Total	**425**	**1,779**	**4,235**	**10**	**6,449**	**305**
Average per 10 open miles	—	—	—	—	11.8	—

(c) Goods Wagons in Stock at the End of the Year.

Kind		Capacity (in *ton*)	0	3	4	5	6	7	8	9	10	11	12	13	15	17	18	20	22	24	25	28	30	7 (Light Rly)	Total No.	Total Tonnage	Inc. or dec.(△) against preceding year
Covered	4-wheel	Wagons	—	—	—	—	—	114	—	—	—	—	—	—	—	—	—	—	—	—	5	—	—	7	126	972	△ 26
	bogie	Brake vans	—	—	19	35	4	—	—	—	—	—	—	—	7	—	—	—	—	—	—	—	—	3	68	401	△ 3
	6-wheel	do. with toothed wheels	—	—	—	—	2	13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	15	103	—
	4-wheel	Wagons	—	—	2	155	788	3,017	7,035	2,067	280	—	—	—	—	—	—	—	—	—	—	—	—	—	13,344	104,313	△ 40
		Wagons with hand brakes	—	—	—	—	—	—	—	—	—	—	755	—	—	—	—	—	—	—	—	—	—	—	755	9,060	755
		Brake vans	—	2	34	189	708	1,239	83	1,356	16	—	—	—	—	—	—	—	—	—	—	—	—	—	3,627	27,036	323
		Iron-built wagons	—	—	2	18	40	73	145	62	519	—	—	—	—	—	—	—	—	—	—	—	—	—	859	7,757	158
		Cattle wagons	—	—	—	1	20	183	104	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	308	2,238	—
		Fish vans	—	—	—	3	24	27	58	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	114	830	—
		Oil cars	—	—	—	3	5	30	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	44	303	—
		Refrigerator cars	—	—	—	—	10	—	369	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	380	3,021	130
		Limestone wagons	—	—	—	—	—	16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	16	112	—
		Furniture vans	—	—	—	—	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	28	—
		Horse vans	—	1	3	1	—	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10	55	—
		Total	—	**3**	**60**	**405**	**1,601**	**4,721**	**7,800**	**3,488**	**815**	—	**755**	—	**7**	—	—	—	—	—	**5**	—	—	**10**	**19,670**	**156,229**	**1,297**
Open	4-wheel bogie	Trucks	—	—	—	—	—	674	—	1	—	—	—	—	63	—	917	—	—	—	5	4	—	40	1,704	22,695	△ 463
		Trucks for bulky goods	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	—	5	150	5
		Timber trucks	—	—	—	—	—	11	—	—	14	—	—	—	175	—	—	10	2	—	65	—	—	—	277	4,711	67
		Coal trucks	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	382	—	—	—	—	382	9,168	242
	4-wheel	Trucks	—	—	—	114	431	2,249	1,504	6,129	1,543	14	1	—	—	—	—	—	—	—	—	—	—	—	11,985	101,688	769
		Brake vans	—	—	—	—	16	—	80	102	—	—	—	—	—	—	—	—	—	—	—	—	—	—	198	1,654	△ 1
		Truck serving as timber trucks	—	—	—	4	1	13	10	10	2	—	—	—	—	—	—	—	—	—	—	—	—	—	40	307	—
		Timber trucks	—	—	—	17	31	223	13	309	8	—	—	—	—	—	—	—	—	—	—	—	—	—	601	4,797	△ 12
		Coal trucks	—	—	—	—	446	454	—	4,262	—	—	92	284	—	—	—	—	—	—	—	—	—	—	5,538	49,008	} 331
		Coal trucks with brake vans	—	—	—	—	—	—	—	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	100	900	
		Ballast trucks	—	—	—	187	219	725	32	24	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,187	7,796	△ 260
		Ballast trucks with brake vans	—	—	—	—	9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9	54	△ 1
		Cokes trucks	—	—	—	—	29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	29	174	—
		Girder trucks	—	—	—	—	—	—	—	—	—	—	—	—	6	—	—	—	—	—	—	—	—	—	6	90	—
		Stone truck	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	1	17	—
		Total	—	—	—	**322**	**1,182**	**4,349**	**1,639**	**10,937**	**1,567**	**14**	**93**	**284**	**244**	**1**	**917**	**10**	**2**	**382**	**70**	**4**	**5**	**40**	**22,062**	**203,209**	**677**
Special service vehicles		Construction service cars	—	—	2	62	63	654	82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	40	903	6,210	200
		Accident cars	—	—	—	—	8	4	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	14	92	△ 3
		Gas holders	26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	26	—	15
		Water tanks	—	—	—	—	12	—	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	17	112	—
		Snow-plows	13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13	—	△ 5
		Tenders	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	△ 3
		Total	**39**	—	**2**	**62**	**83**	**654**	**89**	—	—	—	—	—	—	—	—	—	—	—	—	—	—	**40**	**973**	**6,414**	**204**
Grand Total			**39**	**3**	**62**	**789**	**2,866**	**9,728**	**9,528**	**14,425**	**2,382**	**14**	**848**	**284**	**251**	**1**	**917**	**10**	**2**	**382**	**75**	**4**	**5**	**90**	**42,705**	**365,852**	**2,178**
Average per 10 open miles			—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	78.0	—	—

(5) NUMBER AND WAGES OF WORKMEN AT THE WORKS.

Works \ Item	No. of workmen		No. of work days	No. of day's work	Wages	Average No. and wages of workmen per day		Average No. of workmen and wages per day per capita	
	at the end of the year	Average during the year				No.	Wages	No.	Wages
					yen		*yen*		*yen*
Omiya	2,658	2,840	311	820,691	574,974.760	2,639	1,848.796	1.03	.701
Morioka	565	570	315	170,223	95,490.375	540	303.144	1.02	.561
Tsuchizaki	613	736	306	215,758	99,056.860	705	323.715	1.03	.459
Honjo	223	268	311	76,814	53,910.800	247	173.347	1.06	.702
Shimbashi	1,598	1,787	312	504,857	409,202.880	1,618	1,311.548	1.08	.811
Hamamatsu	801	776	324	229,831	171,205.580	709	528.412	1.09	.745
Nagano	700	733	325	226,616	134,406.820	697	413.562	1.04	.593
Kanazawa	421	458	326	138,215	83,783.270	424	257.004	1.06	.606
Kobe	1,256	1,365	307	390,989	290,032.150	1,274	944.730	1.05	.742
Ikeda	160	174	326	52,463	34,250.490	161	105.163	1.00	.653
Takatori	1,595	1,732	308	485,908	357,280.520	1,578	1,160.002	1.07	.735
Yonago	157	166	320	48,523	27,794.880	152	86.859	1.04	.573
Tadotsu	85	94	310	27,500	17,012.530	89	54.879	1.03	.619
Shimonoseki	311	318	319	93,679	68,789.690	294	215.642	1.06	.734
Yokkaichi	488	523	311	152,012	100,358.120	489	322.695	1.09	.660
Minatomachi	118	133	315	38,196	27,724.560	121	88.014	1.06	.726
Kokura	1,212	1,299	306	362,312	281,361.070	1,184	919.481	1.04	.777
Wakamatsu	266	328	309	95,324	71,108.110	308	230.123	1.06	.746
Yukuhashi	819	877	306	244,838	165,632.600	800	541.283	1.01	.676
Sapporo	320	267	339	86,661	70,036.940	256	206.599	1.15	.808
Temiya	313	319	333	101,655	74,894.510	305	224.908	1.20	.737
Hakodate	169	170	332	52,425	39,974.930	158	120.406	1.19	.763
Asahigawa	580	569	323	174,658	136,239.520	541	421.794	1.18	.780
Iwamizawa	490	524	218	158,177	127,771.850	497	401.798	1.17	.808
Total	**15,918**	**17,026**	**314**	**4,948,325**	**3,512,293.815**	**15,759**	**11,185.649**	**1.06**	**.710**

CHAPTER VIII.

ELECTRICITY.

(1) IMPROVEMENTS AND PROVISIONS FOR ELECTRIC EQUIPMENT.

With the alteration of the jurisdiction of the Divisional Offices, communication arrangements were remodelled accordingly, and the routes of message transmission revised with a view to ensuring a more prompt transit.

In order to facilitate long distance communication, telephone exchange apparatus was provided in some leading stations, the connection between the stations so equipped being effected by means of trunk lines and short circuits deviated thereto.

With the provision of the Yaguchi Power Station, the purchase of current for lighting of some stations on the Yamanote, the North Eastern and the Tokaido lines was abandoned in favour of self-supply method.

The recent development of electric business in the Empire being judged to warrant fundamental renovation in the current supply arrangements in certain stations, careful investigations were instituted over the relative merits between purchase and self-supply, as a result of which power plants of the railways were either abandoned or replaced by transformer plants at a number of places where it was judged more economical to purchase current or where current purchased could be transformed with better advantage. Thus the power plants at Hiroshima and Himeji were suppressed and replaced by transformer plants, while a transformer plant was provided at Minatomachi. Moji Power Station was also converted into a transformer station.

In view of the unwarrantable waste of current and the failure of control traceable to the existing mode of current supply for train lighting by means of a storage battery vehicle, it was decided to change this system for one of 'axle-lighting,' and to that end 10 sets of dynamos made by Vickers Co. were purchased.

A Stone's old type dynamo was remodelled into a new type.

Automatic signals were provided in the electrified section of the Yamanote line.

The electrification of the Tokyo-Yokohama line is well forward, and is expected to be opened for service next year.

(2) ELECTRIC COMMUNICATION ARRANGEMENTS.

The electric communication arrangements made during the year comprised, for the Eastern Division, the provision of new or additional telephone exchange apparatus at Shimbashi and 10 other stations, the wiring of new trunk lines and re-arrangement of telephone circuits on the Shimbashi-Yokohama and 25 other sections, the laying of cables on the Shimbashi station premises and in Nos. 3 and 15 tunnels and the Torikoshi tunnel on the Ichinohe-Fukuoka section, O-U line, the laying of communication circuits on the Hamamatsu station premises, the change of cells into storage batteries for telegraph use at Shimbashi and Ueno stations; for the Kobe Division, the wiring of telegraph line on the Nagoya-Kameyama and 5 other sections, the provision of new telephone-exchange apparatus at Minatomachi station, the laying of new trunk lines for telephone exchange on the Osaka-Minatomachi and the Osaka Hyogo sections, the wiring

of new telephone line on the Maibara-Hyogo and the Yonago-Daisha sections, the change of 'single line' telephone circuits into the 'double line' on the Kanazawa and Yadashin section, the extension to Maibara of the telephone circuits on the Tsuruga-Kanazawa section, the laying of cables in the Koshirazu and 5 other tunnels, the remodelling of cables at Osaka and Hyogo stations, the installation of new Tyre's tablets on the Himeji-Fukuzaki and 5 other sections; for the Kyushu Division, the wiring of new telephone lines on the Yanagigaura-Yukuhashi section, the installation of new telephone exchange apparatus at Wakamatsu and 2 other stations, the wiring of new trunk lines for telephone exchange on the Moji-Wakamatsu-Nogata and 2 other sections, the wiring of new telephone line on the Yukuhashi-Gotoji; for the Hokkaido Division, the wiring of new telegraph lines on the Ikeda-Kushiro and the Obihiro-Kushiro section, the wiring of new trunk lines for telephone exchange on the Asahigawa-Ochiai and 2 other sections, the wiring of new telephone lines on the Takikawa-Shimofurano and 3 other sections.

(3) ELECTRIC COMMUNICATION EQUIPMENT.

Description			1913–14	1912–13	Inc. or dec. (△)
Communication Lines		Length of lines (*ri. cho. ken*)	2,256.2.54	2,168.27.42	87,11.12
		Length of wires (*ri. cho. ken*)	24,151.4.3	21,223.17.25	2,927.22.38
Telepraph Circuits		No.	322	303	19
		Length of wires (*ri. cho. ken*)	10,126.22.27	9,254.20.53	872.1.34
Telephone Circuits		No.	4,664	3,808	856
		Length of wires (*ri. cho. ken*)	15,607.7.27	12,060.05.29	3,547.1.58
Signal Circuits		No.	3,955	3,162	793
		Length of wires (*ri. cho. ken*)	2,758.12.19	2,467.28.02	290.20.17
Total		No.	8,941	7,273	1,668
		Length of wires (*ri. cho. ken*)	28,492.6.13	23,782.18.24	4,709.23.49
Telegraph Apparatus		in actual service	2,035	2,077	△ 42
		in reserve	612	637	△ 25
		total	2,647	2,714	△ 67
Telephone Apparatus		in actual service	9,439	8,178	1,261
		in reserve	1,276	1,058	218
		total	10,715	9,236	1,479
Block Instruments		in actual service	2,818	2,798	20
		in reserve	232	270	△ 38
		total	3,050	3,068	△ 18
Telephone Exchange Apparatus		in actual service	122	83	39
		in reserve	21	22	△ 1
		total	143	105	38
Automatic Time-Sounders		in actual service	40	44	△ 4
		in reserve	7	16	△ 9
		total	47	60	△ 13
Repeaters and Selectors		in actual service	1,281	1,019	262
		in reserve	257	121	86
		total	1,438	1,140	298
Battery Cells — Daniel's		in actual service	31,166	35,831	△ 4,665
		in reserve	368	960	△ 592
		total	31,534	36,791	△ 5,257
Battery Cells — Dry		in actual service	68,419	57,195	11,224
		in reserve	758	1,514	△ 756
		total	69,177	58,709	10,468
Battery Cells — Gravity		in actual service	530	466	64
		in reserve	—	32	△ 32
		total	530	498	△ 32
Battery Cells — Fuller's		in actual service	4	6	△ 2
		in reserve	—	—	—
		total	4	6	△ 2
Battery Cells — Storage Batteries		in actual service	1,687	1,127	560
		in reserve	17	423	△ 406
		total	1,704	1,550	154

(4) RESULTS OF MESSAGE TRAFFIC.

Description		* 1913–14	1912–13	Inc. or dec. (△)
No. of stations open to railway telegram service		1,486	1,404	82
No. of stations accepting public telegrams		876	891	△ 15
Ratio of stations accepting public telegrams per 100 of stations open to railway telegrams		59	63	△ 4
No. of railway telegrams	Despatched	15,029,735	14,812,923	216,812
	Received	15,689,832	15,806,335	△ 116,503
	Transit	10,545,884	10,124,018	421,866
	Total	41,265,451	40,743,276	522,175
No. of public telegrams	Despatched	2,684,350	2,564,850	119,500
	Received	760,340	767,138	△ 6,798
	Transit	3,301,836	3,173,006	128,830
	Total	6,746,526	6,504,994	241,532
Grand total		48,011,977	47,248,270	763,707

(4) RESULTS OF MESSAGE TRAFFIC.—*Continued.*

Description		1913–14	1912–13	Inc. or dec. (△)
Average No. of telegrams dealt with per day per station	Railway	77	80	△ 3
	Public	21	20	1
	Total	89	92	△ 3
Ratio of messages received per 100 of railway messages despatched	Received	104	107	△ 3
	Transit	70	68	2
		yen	*yen*	*yen*
Share of Imperial Gov. Rlys in public telegram receipts	Despatched messages	124,805.325	117,060.200	7,745.125
	Received „	22,527.660	21,689.200	838.460
	Transit „	76,777.875	73,017.200	3,760.675
	Exchanged „	60.420	157.195	△ 96.775
	Delivery charges	24,378.005	23,438.311	939.694
	Receipt notes	92.880	92.310	570
	Copying	13.600	16.300	△ 2.700
	Total	248,655.765	235,470.716	13,185.049
Average receipts from messages per station		283.854	264.277	19.177

(5) ELECTRIC POWER SUPPLY.

Description		1913–14	1912–13	Inc. or dec. (△)
Power cables	Length of lines (*ri. cho. ken*)	116.9.25	111.12.10	4.33.15
	Length of wires (*ri. cho. ken*)	422.12.24	388.17.51	53.30.33
Prime motors	No.	61	43	18
	Total H. P.	11,068	8,544	2,524
Generators	No.	63	46	7
	Total K. W.	8,217.54	6,589.5	1,628,49
Transformers or Converters	No.	94	88	6
	Total K. W.	8,383.5	8,061	322.5

(6) ELECTRIC MOTORS AND ELECTRIC LAMPS IN STOCK.

Description		1913–14	1912–13	Inc. or dec. (△)
Motors	No.	392	341	51
	Total K.W.	5,123,416	3,998,267	1,125,149
Lamps — Glow	No.	51,553	4,306,6	8,487
	Total Watts	3,081,146	2,351,906	729,240
Lamps — Arc	No.	710	854	△ 144
	Total Watts	419,019	507,900	△ 88,881

(7) TRAIN LIGHTING.

Description	1913–14	1913–12	Inc. or dec. (△)
Vehicles lighted by electricity	3,225	2,908	317
Electric lamps fitted in trains	28,588	24,010	4,578
Electric fans fitted in trains	786	700	86
Generators in operation	913	806	107
Battery cells	20,896	18,263	2,633
Battery cars	37	37	—

(8) RESULTS OF WORKING OF POWER STATIONS.

Description	1913–14	1912–13	Inc. or dec. (△)
No. of Stations	20	23	△ 3
Generating capacity (K.W.H.)	13,455,896	11,731,315	1,724,581
Expenses (yen)	289,909.844	299,691.839	△ 9,781.995
Average expenses per K.W.H.	2.15	2.55	.40

(9) RESULTS OF WORKING OF TRANSFORMER STATIONS.

Description	1913–14	1912–13	Inc. or dec. (△)
No. of stations	12	12	—
Watts output (K.W.H.)	6,257,149	4,842,836	1,414,313
Watts input (K.W.H.)	7,672,846	5,994,736	1,678,110
Expenses (yen)	141,938.624	150,112.932	△ 8,174.308
Average expenses per K.W.H. (yen)	2.27	3.10	△ .83

(10) RESULTS OF WORKING OF ELECTRIC TRAMS.

Description	1913–14	1912–13	Inc. or dec. (△)
No. of trams	87	72	15
Mileage run	4,952,495	4,687,955.2	264,540
Volume of current consumed (K.W.H.)	5,823,941	5,362.284	461,657
Expenses (yen)	355,815.029	390,346.401	34,534.372
Current per mile run (K.W.H.)	1.18	1.14	.04
Expenses per mile run (yen)	7.18	8.33	1.15

(11) RESULTS OF WORKING OF ELECTRIC LOCOMOTIVES.

Description	1913–14	1912–13	Inc. or dec. (△)
No. of Engines	12	12	—
Mileage run	122,155	87,722	34,433
Vehicle mileage	761,115	536,215	224,900
Volume of current consumed (K.W.H.)	2,246,847	1,642.050	604,797
Expenses (yen)	156,552.004	100,202.714	46,349.290
Current per mile run (K.W.H.)	18.39	18.7	.32
Expenses per mile run (yen)	1.282	1.256	.026

CHAPTER IX.

FINANCE.

Under the Imperial Railways Special Account Law revised by Law No. 6 of 1909, the receipts and expenditures of the Imperial Government Railways are set apart as purely special account and independent of the General Account. The capital and funds for materials required for the Imperial Government Railways are made the capital of these railways and a special account is established by applying the annual revenue therefrom to the payment of the annual expenditure. The expenditure required for the construction and improvement of railways are defrayed out of the railway profit; and in case of a deficit in the railway profit, the Government is authorised, at the charge of this special account, to issue public loans or to make temporary debentures from other special account and other sources; and for the purpose of consolidating or redeeming public or temporary loans chargeable to this account, the Government is further authorised, at the charge of the same account, to issue public loans or make temporary debentures from other special accounts and other sources. The public and temporary loans above referred to, the public loans already issued to defray expenditures required for carrying on railway undertakings, the public loans already issued or to be issued hereafter for the consolidation or redemption of the loans last-mentioned, the public loans issued under the provisions of the Railway Nationalisation Law, and the debts chargeable under the same Law to the Government which have not yet been completely repaid, all these loans are chargeable to the special account under consideration; and the amount required in each financial year for their redemption or payment of interest thereon is to be transferred to the Special Account for the National Debt Consolidation Fund. The Railway Special Account is subdivided into the Capital Account, the Revenue Account, and the Reserve Account. The Capital Account has for its revenue moneys transferred from the railway profit, proceeds of public and temporary loans, proceeds of sale of its property, receipts from materials and structures for railway use, and miscellaneous receipts belonging to it, and for its expenditure the cost of the construction and improvement of railway, redemption of its debts, cost of materials and structures for railway use and other miscellaneous expenses chargeable to it. The Revenue Account has for its revenue the various receipts from the working of the railways, charges for the lease of articles forming part of its capital, interest on deposits and miscellaneous receipts belonging to it, and for its expenditure various expenses required for the working of the railways, expenses for the up-keep, repair, and replacing of articles forming part of the capital, interest on debts and miscellaneous expenses chargeable to it. The excess of the total annual revenue over the total annual expenditure in the Revenue Account becomes the profit, and the balance remaining after deducting therefrom the amount to be transferred to the Reserve Account is to be transferred to the Capital Account. The Reserve Account has for its revenue the sum not exceeding ten per cent. of the railway profit to be annually transferred therefrom, and for its expenditure sums required to meet deficits in the revenues and expenditures of other accounts caused by natural calamities, accidents and other unforeseen occurrences.

(1) REVENUE AND EXPENDITURE ON THE RAILWAY CAPITAL ACCOUNT, ESTIMATE AND SETTLED.

The revenue estimates for the year were 50,332,635 yen for the railway capital revenue and 44,332,802 yen for the railway stores and works receipts, making a total of 94,665,437 yen, and the amount settled against the same were 40,244,743 yen and fractions for the railway capital revenue, 42,565,241 yen and fractions for the railway stores and works receipts, and 82,809,985 yen and fractions for the total, showing a deficit of 10,087,891 yen and fractions in the capital revenue and a deficit of 1,767,560 yen and fractions in the railway store and works receipts. Compared with the preceding year's figures, the capital revenue

estimates increased by 17,429 yen, while the amount settled showed a decrease of 19,294,299 yen and fractions in the capital revenue and of 610,579 yen and fractions in the stores and works receipts. The decrease in the capital revenue was accounted for by a considerable amount of funds saved through the postponement of several undertakings at the beginning of the fiscal years, while as regards the stores and works receipts the same phenomenon was attributable to the decreased demand for material.

The estimate expenditure as originally drafted stood at 50,232,635 yen for construction and improvement expenses, 44,332,802 yen for stores and works expenses and 100,000 yen for the redemption of loans, making a total of 94,665,437 yen. After adding to it 9,747,062 yen brought over from the last year's account, the total estimate expenditure for the year came to 104,412,499 yen and fractions. The amount settled against the same totalled 41,277,647 yen and fractions for construction and improvement expenses, 41,930,671 yen and fractions for stores and works expenses, 100,000 yen for the redemption of loans, and 83,308,319 yen and fractions for the total, the excess of the estimates over the settled amount being 18,702,049 yen and fractions for construction and improvement (which are to be carried forward to the next year's account) and 2,402,130 yen and fractions for stores and works expenses. Compared with the corresponding figures for the preceding year, the estimates decreased by 9,018,266 yen and fractions for construction and improvement expenses, while the amount settled decreased by 17,973,254 yen and fractions for construction and improvement and by 1,509,045 yen and fractions for stores and works expenses. The details are shown below :—

(a) Revenue on the Railway Capital Account, Estimate and Settled.

Item	Estimate	Settled	Balance
	yen	*yen*	*yen*
Railway Capital Revenue	50,332,625.000	40,244,743.619	10,087,891.381
Transferred from Railway Profit	15,014,823.000	19,294,314.869	△ 4,279,491.869
Debentures	35,103,216.000	20,300,000.000	14,803,216.000
Miscellaneous	214,596.000	650,428.750	△ 435,832.750
Railway Stores and Works Receipts	44,332,802.000	42,565,241.684	1,767,560.316
Stores and Works Receipts	44,228,842.000	42,126,721.154	2,102,120.846
Sale of Stores	35,194,624.000	34,760,228.555	434,395.445
Repair of Stores	8,798,656.000	7,204,190.779	1,594,465.221
Electric Current Supply	235,562.000	162,301.820	73,260.180
Miscellaneous	103,960.000	438,520.530	△ 334,560.530
Total	**94,665,437.000**	**82,809,985.303**	**11,855,451.697**

Note:—The figures marked with (△) show excess of the amounts settled over the estimates. This remark also applies to the following tables.

(b) Expenditure on the Railway Capital Account, Estimate and Settled.

Item	Brought over from preceding year	At beginning of the year	Actual account at end of the year	Settled	Balance
	yen	*yen*	*yen*	*yen*	*yen*
Railway Construction and Improvement	9,747,062.275	50,232,635.000	59,979,697.275	41,277,647.882	18,702,049.393
Construction Expenses	4,080,973.907	24,270,896.000	28,351,869.907	18,686,240.576	9,665,629.331
General Expenses	19,763.984	173,783.000	193,546.984	120,843.453	72,703.531
Hachioji-Nagoya Line	255,902.707	810,009.000	449,441.456	272,836.456	176,605.000
Hokkaido Lines	440,815.934	3,231,055.000	3,671,870.934	1,194,497.959	2,477,372.975
Usa-Oita Line	109,558.414	970,035.000	496,556.429	82,745.851	413,810.578
Yamada-Toba Line	3,970.206	252,248.000	1,435.700	1,435.700	—
Miyazaki-Yoshimatsu Line	442,661.313	2,200,000.000	2,642,661.313	1,016,530.441	1,626,130.872
Boso Line	97,044.652	1,366,300.000	118,262.445	104,454.761	13,807.684
Kogota-Shinjo-Sakata Line	27,171.555	2,200,000.000	2,227,171.555	1,970,957.907	256,213.648
Kagoshima-Sendai Line	118,258.929	2,000,000.000	1,557,006.182	765,406.884	791,599.298
Koriyama-Taira Line	70,824.115	1,000,000.000	2,073,547.537	2,073,547.537	—
Imaichi-Hamada Line	276,503.959	2,000,000.000	2,276,503.959	860,319.582	1,416,184.377
Oita-Saiki Line	216,003.123	1,000,000.000	1,462,653.228	1,462,653.228	—
Kawada-Ikeda Line	28,838.179	1,600,000.000	687,462.436	516,387.774	171,074.662
Shibata-Murakami Line	5,623.129	300,000.000	965,751.100	965,751.100	—
Tadotsu-Kawanoe Line	26,964.987	300,000.000	770,351.867	770,351.867	—
Kisarazu-Hojo Line	185,080.970	250,000.000	874,714.059	874,714.059	—
Tsuruga-Shinmaizuru Line	216,188.224	250,000.000	466,188.224	86,348.720	379,839.504
Hamada-Yamaguchi & Masuda-Hagi Lines	203,161.758	318,000.000	521,161.758	309,930.804	211,230.954
Rolling Stock	334,411.438	2,749,475.000	3,083,886.438	1,497,679.870	1,586,206.568
Light Railways	292,413.633	1,300,000.000	1,921,443.911	1,921,443.911	—
Kitakata-Niitsu Line	69,373.766	—	1,035,706.892	1,035,706,892	—
Niitsu-Shibata Line	99.425	—	10,832.733	10,832.733	—
Ogori-Yamaguchi Line	77,919.492	—	27,919.492	17,225.134	10,694.358
Imaichi-Kizuki Line	22,415.309	—	1,820.620	1,820.620	—
Fukuchiyama-Sakai-Imaichi Line	173,835.823	—	362,289.214	362,289.214	—
Toyama-Naoetsu Line	198,406.886	—	289,757.728	289,757.728	—
Fukushima-Aomori Line	22,882.063	—	14,111.388	14,111.388	—
Yatsushiro-Kagoshima Line	71,875.213	—	71,875.213	37,101.007	34,774.206
Okayama-Uno Line	31,209.910	—	31,209.910	3,828.794	27,381.116
Fukuchiyama-Sonobe-Maizuru Line	41,794.811	—	44,729,202	44,729.202	—
Improvement Expenses	5,666,088.368	25,961,739.000	31,627,827.368	22,591,407.306	9,036,420.062

(b) Expenditure on the Railway Capital Account, Estimate and Settled.—*Continued.*

Item	Brought over from preceding year	At beginning of the year	Actual account at end of the year	Settled	Balance
	yen	*yen*	*yen*	*yen*	*yen*
Stores and Work Expenses	—	44,332,802.000	44,332,802.000	41,930,671.603	2,402,130.397
Stores Expenses	—	39,205,221.000	39,205,221.000	37,262,343.313	1,942,877.687
Works Expenses	—	4,653,621.000	4,653,621.000	4,548,830.738	104,790.262
Electric Current Supply	—	369,005.000	369,005.000	77,103.749	291,901.251
Refunds	—	104,955.000	104,955.000	42,393.803	62,561.197
Redemption of Loans	—	100,000.000	100,000.000	100,000.000	—
Total	9,747,062.275	94,665,437.000	104,412,499.275	83,308,319.485	21,104,179.790

(c) Special Continuing Expenditure on the Railway Capital Account.

The following table shows the amounts settled and the surplus over the continuing expenditure on the Railway Capital Account estimated for the year.

Description	Spread over (fiscal year)	Estimate	Settled	Balance
		yen	*yen*	*yen*
Construction Expenses	—	252,614,318.000	147,484,941.669	105,129,376.331
General Expenses	1907–25	2,100,288.000	802,265.825	1,298,022.175
Fukushima-Aomori Line	1907–13	4,177,791.000	2,274,424.059	1,903,366.941
Hachioji-Nagoya Line	1907–14	15,952,505.000	10,252,912.167	5,699,592.833
Yatsushiro-Kagoshima Line	1907–13	6,115,737.000	6,472,754.749	△ 357,017.749
Fukuchiyama-Sakai-Imaichi Line	1907–13	18,694,793.000	19,833,421.796	△ 1,138,628.796
Fukuchiyama-Sonobe-Maizuru Line	1907–13	5,137,236.000	4,477,682.893	659,553.107
Toyama-Naoetsu Line	1907–13	12,810,107.000	12,789,487.634	20,619.366
Hokkaido Lines	1907–13	23,003,647.000	16,112,134.439	6,891,512.561
Kitakata-Niitsu Line	1907–13	7,516,709.000	11,010,285.468	3,493,576.468
Okayama-Uno Line	1907–13	1,936,934.000	2,602,328.743	△ 665,394.743
Usa-Oita Line	1907–13	4,851,035.000	3,916,693.032	934,341.968
Yamada-Toba Line	1907–13	1,448,248.000	936,199.908	512,048.092
Niitsu-Shibata Line	1907–13	1,963,332.000	1,696,029.128	267,302.872
Miyazaki-Yoshimatsu Line	1910–17	10,632,577.000	3,942,370.417	6,690,206.583
Boso Line	1910–15	5,587,621.000	2,233,708.532	3,353,912.468
Kogota-Shinjo-Sakata Line	1910–18	13,486,677.000	6,441,721.159	7,444,955.841
Kagoshima-Sendai Line	1910–15	6,647,285.000	5,273,501.405	1,373,783.595
Koriyama-Taira Line	1911–17	8,002,124.000	3,846,926.376	4,155,197.624
Imaichi-Hamada Line	1911–18	12,814,768.000	2,416,525.366	10,398,242.634
Ogori-Yamaguchi Line	1911–13	674,175.000	606,434.463	67,740.537
Imaichi-Kizuki Line	1911–13	295,665.000	170,082.280	125,582.720
Oita-Saiki Line	1911–17	8,209,323.000	3,206,844.558	5,002,478.442
Kawada-Ikeda Line	1911–15	3,561,634.000	1,500,164.000	2,061,470.000
Shibata-Murakami Line	1912–17	2,531,758.000	1,462,177.237	1,069,580.763
Tadotsu-Kawanoe Line	1912–17	2,202,130.000	1,043,386.880	1,158,743.120
Kisarazu-Hojo Line	1912–19	5,469,026.000	1,082,411.089	4,386,614.911
Tsuruga-Shinmaizuru Line	1912–20	7,915,463.000	170,160.496	7,745,302.504
Hamada-Yamaguchi and Masuda-Hagi Line	1912–25	23,479,803.000	441,571.801	23,038,231.199
Rolling Stock Expenses	1907–25	25,910,827.000	15,817,770.605	10,093,056.395
Light Railways	1911–20	9,485,100.000	4,652,565.164	4,832,534.836
Improvement Expenses	1907–21	199,651,452.000	123,199,997.938	76,451,454.062
Total		**452,265,770.000**	**270,684,939.607**	**181,580,830.393**

Note:—The gross amount of estimates includes supplementary estimates voted at the 31st session of the Diet. The deficits on the Yatsushiro-Kagoshima, the Fukuchiyama-Sakai-Imaichi, the Kitakata-Niitsu and the Okayama-Uno lines were appropriated from the three items of the Fukushima-Aomori and the Hachioji-Nagoya lines and rolling stock expenses.

(2) REVENUE AND EXPENDITURE ON THE RAILWAY REVENUE ACCOUNT, ESTIMATE AND SETTLED.

The revenue for the year as originally estimated figured up to 112,752,761 yen, which together with 1,550,000 yen supplemented and 726,364 yen and fractions brought over from the last year's account, made up a total of 115,029,125 yen and fractions. The amount settled against this was 117,897,677 yen and fractions, leaving an excess of 2,868,552 yen and fractions over the estimates. The expenditure as originally estimated was 96,487,938 yen on account of working expenses, 1,550,000 yen for supplementary expenses, 750,000 yen for subsidies, 726,364 yen and fractions brought over from the last year's account and 99,514,302 yen and fractions for the total. The sum settled against this was 96,626,998 yen and fractions for working expenses, 153,936 yen and fractions for subsidies and 96,780,934 yen and fractions for the total, leaving a balance of 2,733,367 yen and fractions to the credit of the estimates, the surplus in subsidies among them being carried forward to the next year's account.

On comparing the foregoing revenue and expenditure with the corresponding figures in the preceding year, it is found that the revenue increased by 12,361,467 yen and fractions in the estimate and by 6,624,824 yen and fractions in the settled amount, while the estimate expenditure increased by 7,454,195 yen and fractions consisting of 6,727,831 yen for working expenses and 726,364 yen and fractions for subsidies, and the settled expenditure by 5,866,504 yen and fractions consisting of 5,736,203 yen and fractions

for working expenses and 130,300 yen and fractions for subsidies. The increase was attributable to the growth of traffic occasioned by the extension of the existing lines and by the opening of new lines. Details on this account are given as under:—

Revenue:—

Item	Estimate			Settled	Balance
	Original	Supplementary	Total		
	yen	*yen*	*yen*	*yen*	*yen*
Receipts from Operation	112,752,761.000	1,550,000.000	114,302,761.000	117,171,313.011	△ 2,868,552.011
Traffic Receipts	110,824,381.000	1,550,000.000	112,374,381.000	114,724,443.084	△ 2,350.062.084
Passenger Traffic Receipts ...	57,156,871.000	450,000.000	57,606,871.000	58,772,959.684	△ 1,166,088.684
Goods Traffic Receipts	53,667,510.000	1,100,000.000	54,767,510.000	55,951,483.400	△ 1,183,973.400
Miscellaneous Receipts	1,928,380.000	—	1,928,380.000	2,446,869.927	△ 518,489.927
Rentals	534,021.000	—	534.021.000	595,689.655	△ 61,668.655
Levies from Station Venders...	70,682.000	—	70,682.000	60,820.930	9,861.070
Telegraph Charges	236,770.000	—	236,770.000	221,368.010	15,401.990
Rents for Vehicles	141,176.000	—	141,176.000	50,822.650	90,353.350
Proceeds of Sale of Stores ...	159,123.000	—	159,123.000	219,995.938	△ 60,872.938
Receipts from Hotels	33,416.000	—	33,416.000	60,012.420	△ 26,596.420
Bank Interest	522,200.000	—	522,200.000	1,027,365.783	△ 505,165.783
Miscellaneous	230,992.000	—	230,992.000	210,794.541	20,197.459
Brought over from last year's account	—	—	726,364.430	726,364.430	0
Subsidies to Light Railways ...	—	—	726,364.430	726,364.430	0
Total	**112,752,761.000**	**1,550,000.000**	**115,029,125.430**	**117,897,677.441**	**2,868,552.011**

Expenditure:—

Item	Estimate			Settled	Balance
	Original	Supplementary	Actual account at the end of the year		
	yen	*yen*	*yen*	*yen*	*yen*
Working Expenses for Operation...	96,487,938.000	1,550,000.000	98,037,938.000	96,626,998.142	1,410,939.858
Working Expenses	56,316,051.000	1,300,000.000	57,616,051.000	57,356,895.419	259,155.581
General Expenses	1,870,905.000	—	1,553,645.659	1,548,672.656	4,973.003
Maintenance of Way & Works	11,353,304.000	300,000.000	12,624,686.401	12,624,686.401	0
Transportation Expenses ...	14,923,270.000	500,000.000	14,973,270.000	14,892,048.545	81,221.455
Maintenance of Rolling Stock	8,198,473.000	—	7,698,473.000	7,663,981.335	34,491.665
Traffic Expenses	15,029,430.000	500,000.000	15,117,928.774	14,979,459.316	138,469.458
Hotel Expenses	37,051.000	—	68,740.051	68,740.051	0
Shipping Expenses	1,830,655.000	—	2,379,084.774	2,379,084.774	0
Additional Expenses	2,600,000.000	—	2,617,391.631	2,617,391.631	0
Subsidies to Relief Association	289,568.000	—	295,018,710	295,018.710	0
Rents for Leased Line	163,395.000	—	267,812.000	267,812.000	0
Secret Service Funds	20,000.000	—	20,000.000	20,000.000	0
Interest Charges for Loans ...	36,710,805.000	—	36,710,805.000	35,575,844.493	1,134,960.507
Interest on Capital Loans ...	36,467,807.000	—	35,782,676.803	34,647,716.296	1,134,960.507
Interest on Debentures	100,000.000	—	717,890.227	717,890.227	0
Charges for Loans	142,998.000	—	210,237.970	210,237.970	0
Refunds and Advances	3,461,082.000	250,000.000	3,711,082.000	3,694,258.230	16,823.770
Refunds	2,363,700.000	170,000.000	2,533,700.000	2,521,901.660	11,798.340
Advances	1,097,382.000	80,000.000	1,177,382.000	1,172,356.570	5,025.430
Subsidies...	750,000.000	—	1,476,364.430	153,936.290	1,322,428.140
Total	**97,237,938,000**	**1,550,000.000**	**99,514,302.430**	**96,780,934.432**	**2,733,367.998**

(3) REVENUE AND EXPENDITURE ON THE RAILWAY RESERVE ACCOUNT, ESTIMATE AND SETTLED.

The estimated revenue for the year was 2,609,310 yen and the estimated expenditure same in amount, while no expenditure was settled, the surplus of the same amount being therefore carried forward as revenue to the next year's account.

Revenue.

Item	Estimate	Settled	Surplus
	yen	*yen*	*yen*
Reserve Fund	500,000.000	500,000.000	—
Amount brought over from last year's account	2,109,310.000	2,109,310.000	—
Total	**2,609,310.000**	**2,609,310.000**	—

Expenditure.

Item	Estimate	Settled	Surplus
	yen	*yen*	*yen*
Deficits made good	2,609,310.000	—	2,609,310.000

(4) BALANCE SHEET ON THE RAILWAY CAPITAL ACCOUNT.

Assets and liabilities on the capital account for the year are tabulated below:—

Assets	*yen*	Liabilities	*yen*
Cash	4,001,659.850	Special Capital	219,252,564.227
Deposits	8,163,378.608	Borrowed Capital	753,838,931.517
Amount receivable	422.690	Public Loans	714,991,630.420
Fixed property	956,793,798.231	Debentures	25,179,101.097
Stores in stock	7,897,315.617	Debts devolved from the nationalised Railways	13,668,200.000
Works Account	481,108.383	Amount payable	244,527.785
		Reserves	2,609,310.000
		Surplus in Subsidies to Light Railways	1,322,428.140
		Extra-budgetary Account	69,921.710
Total	**977,337,683.379**	**Total**	**977,337,683,379**

The movement of the property and the returns thereof at the end of the year are as follows:—

	yen
Amount at the beginning of the year	915,163,003.362
Increase during the year:—	
Construction and Improvement Expenses settled	41,277,647.882
Supplementary Expenses settled	2,617,391.631
Land acquired, etc.	747,865.490
Decrease during the year:—	
Property scrapped, Land transferred, etc.	3,012,110.134
Balance (at the end of the year)	956,793,798.231

The movement of the railway capital during the year and the returns thereof at the end of the year are as follows:—

Item	Special Capital	Borrowed Capital				Grand Total
		Loans	Debentures	Debts devolveed from nationalized railway	Total	
	yen	*yen*	*yen*	*yen*	*yen*	*yen*
Brought over from last year's account	205,343,909.459	672,845,066.670	40,714,104.500	13,768,200.000	727,327,371.170	**932,671,280.629**
Increase during the year:—						
Railway Capital Revenue	19,944,743.619	—	20,300,000.000	—	20,300,000.000	**40,244,743.619**
Supplementary Expenses settled	2,617,391.631	—	—	—	—	**2,617,391.631**
Land acquired, etc.	747,865.490	—	—	—	—	**747,865.490**
Profit due to Appreciation of Public Bonds	105,400.000	—	—	—	—	**105,400.000**
Increase due to Conversion or new Issue of Loans	—	112,517,313.750	—	—	112,517,313.750	**112,517,313.750**
Decrease during the year:—						
Land transferred, etc.	3,012,110.134	—	—	—	—	**3,012,110.134**
Loss due to Depreciation of Public Bonds	6,416,960.347	—	—	—	—	**6,416,960.347**
Deficit in Works and Stores Account	77,675.491	—	—	—	—	**77,675.491**
Redemption of Debentures	—	—	—	100,000.000	100,000.000	**100,000.000**
Decrease due to Conversion or Liquidation of Public Bonds	—	70,370,750.000	35,835,003.403	—	106,205,753.403	**106,205,753.403**
Balance carried forward to next year's account	219,252,564.227	714,991,630.420	25,179,101.097	13,668,200.000	753,838,931.517	**973,091,495.744**

(5) ABSTRACT OF RAILWAY REVENUE ACCOUNT.

The revenue account for the year under review stands as follows:—

Loss	Amount	Profit	Amount
	yen		*yen*
Expenses for Operation	96,626,998.142	Receipts from Operation	117,171,313.011
Subsidies to Light Railways	153,936.290	Surplus in Subsidies to Light Railways (brought over from last year's account)	726,364.430
Surplus in Subsidies to Light Railways (carried forward to next year's account)	1,322,428.140		
Net Profit	19,794,314.869		
Transferred to Reserve Account	500,000.000		
Transferred to Capital Account	19,294,314.869		
Total	**117,897,677.441**	**Total**	**117,897,677.441**

After deducting the refunds and advances, the foregoing figures are specified hereunder:—

		yen
Traffic Receipts	Earnings from Passenger Traffic	57,296,280.114
	Earnings from Goods Traffic	53,737,252.870
	Sundry Receipts	2,443,521.797
	Total	**113,477,054.781**
Working Expenses	General Expenses	1,360,414.557
	Maintenance Expenses	12,624,686.401
	Transportation Expenses	14,892,048.545
	Maintenance of Rolling Stock	7,663,981.335
	Traffic Expenses	14,979,459.316
	Hotel Expenses	68,740.051
	Shipping Expenses	2,379,084.774
	Subsidies to Relief Association	295,018.710
	Rents of Private Railway Lines	267,812.000
	Secret Service Funds	20,000.000
	Total	**54,551,245.689**
Railway and Tramway Inspection and Survey		188,258.099
Supplementary Expenses		2,617,391.631
Interest Charges for Loans		35,575,844.493
Total		**92,932,739.912**
Profit		20,544,314.869
Deduct—Surplus in Subsidies to Light Railways (to be carried forward to next year's account)		750,000.000
Net Profit		19,794,314.869

N.B.—750,000 yen for subsidies to light railways indicate a balance between 726,364 yen and fractions brought over from last year's account, 53,936 yen and fractions for disbursements during the year and 1,322,428 yen and fractions carried forward to next year's account.

The following shows the average earnings and expenses per day and per mile as compared with the preceding year:—

Item		1913–14	1912–13	Inc. or dec. (△)
		yen	*yen*	*yen*
Average Traffic Earnings	per day	**310,896.040**	295,960.652	14,935.388
	per mile	**21,218.597**	21,057.629	160.968
	per day per mile	**58.133**	57.692	.441
Average Working Expenses	per day	**149,455.468**	137,023.691	12,431.777
	per mile	**10,200.308**	9,749.249	451.059
	per day per mile	**27.946**	26.710	1.236
Average Profit	per day	**161,440.572**	158,936.961	2,503.611
	per mile	**11,018,289**	11,308.380	△ 290.091
	per day per mile	**30.187**	30.982	△ .795

The expenses incurred by damage form floods and other accidents for the year under review aggregated 716,871 yen and fractions, made up as under:—

Item	1913–14	1912–13	Inc. or dec. (△)
	yen	*yen*	*yen*
General Expenses	554,369.647	345.390	554,024.257
Maintenance Expenses	419.460	447,799.398	106,570.249
Transportation Expenses	2,934.841	339.360	2,595.481
Maintenance of Rolling Stock Expenses	159,140.020	1,143.600	447.802
Supplementary Expenses	—	68,269.345	△ 68,269.345
Total	**716,863.968**	**517,897.093**	**198,966.876**

CHAPTER X.

RAILWAY STORES.

(1) REORGANISATION OF STORE MANAGEMENT.

With a view to effecting unification in the management of railway stores and at the same time to ensuring prompt attention to the requirements of the different consuming offices and departments, a revision was made in the organisation of this department in May, 1913 whereby the Comptroller of General Stores was appointed, with sole control over all matters relative to the purchase and distribution of railway stores which had hitherto been left mostly to the discretion of the different Divisional Offices. Furthermore, a number of district stores and branches were provided wherever judged necessary over the whole railway system in order to facilitate the purchase of articles in urgent need as well as their prompt distribution.

(2) STORE FUNDS AND MATERIALS ISSUED.

The creation of the General Stores has practically made the distribution of stores communal among the different offices and departments which had hitherto provided themselves for their own stores and on that account had largely hampered facilities of making up shortages among themselves. On the other hand, it was arranged that the purchase of railway stores should be made with the store funds, instead of being, as it formerly was, charged to the different consuming departments. This renovation, together with the curtailment of works estimates and disposal of unneeded stores, had done much to minimise the standing trouble of having to keep idle in stock more stores and materials than are needful on the part of the various consuming departments, and, indeed, the stores left in stock at the end of the year were in consequence reduced to 7,897,315 yen in value, a decrease of 791,211 yen as compared with the preceding year.

The reassuring results of the revision were also noticeable in the surplus of materials issued to the consuming departments at the end of the year which stood no higher than at 7,328,982 yen in value, being 4,767,024 yen less than the preceding year.

The store funds existing at the beginning of the year under review, as compared with the end of the same year, are tabulated below :—

Item	April 1st, 1913	March 31st, 1914	Balance, inc. or dec. (△)
	yen	*yen*	*yen*
Debt.:—			
Stores in stock	8,688,526.286	7,897,315.617	△ 791,210.669
Works Account	390,754.536	481,108.383	△ 109,646.153
Cash on hand	433,129.897	390,051.434	823,181.332
Total	**8,846,150.925**	**8,768,475.434**	△ **77,675.491**
Credit.:—			
Funds	8,846,150.925	8,768,475.434	△ 77,675.491

N.B.—The unsettled receipts and expenses on the above account are turned into cash.

The following table shows the stock of materials issued at the end of the year as compared with the beginning of the same year :—

Item	April 1st, 1913	March 31st, 1914	Inc. or dec. (△)
	yen	*yen*	*yen*
Steel	711,067	860,068	149,001
Best Yorkshire iron	182,430	95,127	△ 87,303
Iron of ordinary quality	231,187	126,840	△ 104,347
Copper	179,900	126,135	△ 53,765
Pig iron	186,429	190,194	3,765
Timber	542,162	521,676	△ 20,486
Paints	215,371	191,070	△ 24,301
Oils for locomotive working	47,477	79,852	32,375
Coal	202,954	317,860	114,906
Rails	415,388	374,029	△ 41,359
Rail-fastenings	142,852	115,448	△ 27,404
Points and crossings	120,367	190,993	70,626
Sleepers	538,872	417,003	△ 121,869
Girders	266,922	230,795	△ 36,127
Springs for rolling stock	149,370	141,261	△ 8,109
Tyres	356,319	318,281	△ 38,038
Rolling stock	5,785	143,293	137,508
Wheels and axles	518,679	208,118	△ 310,561
Steam boiler tubes	195,187	124,624	△ 70,563
Cement	20,808	10,945	△ 9,863
Clothing	666,168	861,157	194,989
Miscellaneous	2,792,832	2,252,546	△ 540,286
Total	**8,688,526**	**7,897,315**	△ **791,211**

The following table shows the stores on hand at the end of the year under review as compared with the beginning of the same year:—

Item \ Charged to / Date	Expenses for Operation			Construction Expenses			Improvement Expenses			Total		
	April 1st 1913	March 31st 1914	Inc. or dec. (△)	April 1st 1913	March 31st 1914	Inc. or dec. (△)	April 1st 1913	March 31st 1914	Inc. or dec. (△)	April 1st 1913	March 31st 1914	Inc. or dec. (△)
	yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
Metals	11,397	7,716	△ 3,681	9,954	4,615	△ 5,339	54,267	14,169	△ 40,098	75,618	26,500	△ 49,118
Timber	31,989	25,569	△ 6,420	18,513	15,042	△ 3,471	66,174	17,823	△ 48,351	116,676	58,434	△ 58,242
Paints	13,681	11,455	△ 2,226	12,958	10,597	△ 2,361	11,298	8,111	△ 3,187	37,937	30,163	△ 7,774
Medicines	3,609	4,113	504	4,037	500	△ 3,537	1,484	482	△ 1,002	9,130	5,095	△ 4,035
Fuel, charcoal, oils, etc.	7,322	5,041	▵ 2,281	8,021	8,964	943	3,162	792	△ 2,370	18,505	14,797	△ 3,708
Waste silk	271	159	△ 112	2,070	1,020	△ 1,050	186	24	△ 162	2,527	1,203	△ 1,324
Workshop appliances	134	32	△ 102	—	—	—	17,447	—	△ 17,447	17,581	32	△ 17,549
Tools and machines	197	2	△ 195	2,676	3,917	1,241	128,073	78,110	△ 49,963	130,946	82,029	△ 48,917
Track appliances — Rails	134,009	423,959	289,950	2,153,743	1,333,822	△ 819,921	834,192	854,658	20,466	3,121,944	1,612,439	△ 509,505
Track appliances — Rail-fastenings	60,500	99,110	38,610	390,118	267,807	△ 122,311	177,110	167,079	△ 10,031	627,728	533,996	△ 93,732
Track appliances — Points and crossings	121,784	151,737	29,953	137,604	87,341	△ 50,263	198,536	138,543	△ 59,993	457,924	377,621	△ 80,303
Track appliances — Sleepers	254,243	332,391	78,148	359,539	304,754	54,785	283,056	252,395	△ 30,661	896,838	889,540	△ 7,298
Track appliances — Signals	9,850	9,943	93	33,124	19,787	13,337	18,420	5,194	△ 13,226	61,394	34,924	△ 26,470
Track appliances — Others	117,898	102,481	△ 15,417	172,674	57,673	△ 115,001	77,224	65,966	△ 11,258	367,796	226,120	△ 141,676
Track appliances — Total	698,284	1,119,622	422,337	3,246,802	2,071,184	△ 1,175,618	1,588,538	1,483,835	△ 104,703	5,533,624	4,674,640	△ 858,984
Bridge girders and accessories — Girders	20,239	9,246	▵ 10,993	1,116,155	988,112	△ 128,043	667,563	241,048	△ 426,515	1,803,957	1,238,406	△ 565,551
Bridge girders and accessories — Others	234	196	△ 38	32,294	15,368	△ 16,926	63,430	12,892	△ 50,538	96,048	28,456	△ 67,592
Bridge girders and accessories — Total	20,563	230	△ 2,378	4,552	4,341	△ 211	61	1	△ 60	7,221	4,572	△ 2,649
Rolling and floating stock and appliances	2,608	9,442	△ 11,121	1,148,449	1,003,480	△ 144,969	730,993	253,940	△ 477,053	1,900,005	1,266,862	△ 633,143
Cement and lime	28,103	21,482	▵ 6,621	563,971	232,699	△ 331,272	166,970	85,268	△ 81,702	759,044	339,449	△ 419,595
Spikes, pins, etc.	21,719	17,366	△ 4,353	15,153	9,567	△ 5,586	16,019	9,596	△ 6,423	52,891	36,529	△ 16,362
Stone	16,771	3,489	△ 13,282	246,768	127,084	△ 119,684	148,125	44,736	△ 103,389	411,664	175,309	△ 236,355
Service-water materials	3,455	1,937	△ 1,518	11,951	7,425	△ 4,526	1,017	6,051	5,034	16,423	15,413	△ 1,010
Building materials	4,268	4,468	200	7,832	7,814	△ 18	24,694	3,373	21,321	36,794	15,655	△ 21,139
Miscellaneous	212,851	241,697	28,846	114,471	100,750	△ 13,721	2,642,098	239,853	△ 2,402,245	2,969,420	582,300	△ 2,387,120
Total	**1,077,222**	**1,473,819**	**396,597**	**5,418,178**	**3,608,999**	**△ 1,809,179**	**5,600,606**	**2,246,164**	**△ 3,354,442**	**12,096,006**	**7,328,982**	**△ 4,767,024**

(3) DISPOSAL OF UNNEEDED STORES.

The disposal of unneeded stores became a very urgent question with the railway authorities, as it accumulated in large mass year by year and not only involved money and trouble in their keeping, but seriously hampered the operation of the store funds. Attempts made in 1909 at disposing of the mass having failed to gain the results desired, a radical plan was devised in August, 1913 for getting rid of this standing trouble once for all. To that end in view, urgent instructions were issued to the different storekeepers to send all unneeded stores in their charge round to Tokyo and Kobe, leaving only those likely to be sold at an advantage in their respective districts. The stores thus cellected together aggregated 1,236,950 yen in estimated value, of which 590,342 yen's worth was sold for 271,573 yen or at a loss of 318,769 yen, and 80,914 yen's worth was appropriated to the use of the different departments at a reduced value of 44,019 yen or at a loss of 36,895 yen. Then the articles issued to the consuming departments were also disposed of at the value of 157,827 yen.

Of the stores in stock, 565,694 yen's worth still remains to be disposed of, the greater part of which, however, consists of those articles which are judged unprofitable to sell at the present. Excepting these, disposal of the remnant will be effected in the next year together with the issued articles left undisposed.

(4) PURCHASE OF STORES.

The public tender method of purchase which is generally the rule with the Government offices, but which often degenerates to mere formalism, was largely abandoned in favour of one of private arrangement which possesses the advantage of bringing the purchasing agents in close touch with the suppliers, with the result of ensuring, through adjustment between demand and supply, the best possible arrangements as to quality and price.

As regards the purchase of clothing which had long been taxing the ingenuity of the authorities, a clothing shop was created in July, 1911, the supply of this important article being thereby placed under direct management of the Railways. The new institution proved producive of highly satisfactory results in the matter of supplying good and cheap stuff.

The total amount of purchase made during the year was 33,081,213 yen in value, a decrease of 9,282,161 yen as compared with the preceding year. The following shows the sum of contracts as dealt with at the different stores and construction offices.

	yen
General Stores	28,305,481
Tokyo Stores	1,866,642
Kobe Stores	1,419,686
Kyushu Stores	597,580
Hokkaido Stores	634,851
Construction Offices	256,973
Total	**33,081,213**

The principal items of purchase made during the year are shown below:—

Item	Home purchase		Foreign purchase		Total	
	Quantity	Value	Quantity	Value	Quantity	Value
		yen	*yen*	*yen*		*yen*
Locomotives	72	2,121,450	—	—	72	2,121,450
Tenders	36	145,800	—	—	36	145,800
Passenger cars and brake vans	27	154,065	—	—	27	154,065
Electric trams	12	43,176	—	—	12	43,176
Goods wagons	854	732,576	—	—	854	732,576
Coal trucks	6	893	—	—	6	893
Wheels and axles for locomotives *l.b.*	18,000	3,315	—	—	18,000	3,315
Wheels and axles for vehicles „	—	—	5,111,040	425,624	5,111,040	425,624
Tyres for vehicles and locomotives „	3,440,932	191,166	—	—	3,440,932	191,166
Wheel-centers for vehicles & locomotives „	333,680	36,042	—	—	333,680	36,042
Springs „	4,760	659	2,625,483	183,784	2,630,242	184,443
Buffers „	3,882,100	194,909	—	—	3,882,100	194,909
Rails and fastenings *ton*	181	22,724	—	—	181	22,724
Turntables and traversers *set*	24	29,534	—	—	24	29,534
Points and crossings „	3,112	192,362	—	—	3,112	192,362
Signals „	476	51,502	9	3,885	485	55,387
Steel girders *ton*	16,351	2,722,636	1,515	124,806	17,866	2,847,442
Overbridges „	94.3	14,564	—	—	94.3	14,564
Iron and steel „	19,605	577,215	4,457	413,473	24,062	990,688
Other metals „	—	468,005	—	63,001	—	1,006
Copper wires & No. 8 galvanized wires *l.b.*	1,530,112	346,569	855,000	44,152	2,385,112	390,721
Coals *ton*	2,204,964	9,506,480	—	—	2,204,964	9,506,480
Mineral oils *koku*	27,019	575,947	—	—	27,019	575,947
Cements *cask*	555,006	1,996,354	—	—	555,006	1,996,354
Sleepers	2,041,933	1,420,039	—	—	2,041,933	1,420,039
Point and bridge sleepers	104,023	246,874	—	—	104,023	246,874
Bricks	8,157,225	121,604	—	—	8,157,225	121,604
Paints *l.b.*	1,053,012	146,610	—	—	1,053,012	146,610
Varnish *gallon*	18,062	113,219	—	—	18,062	113,219
Linseed oil „	89,498	142,186	—	—	89,498	142,186
Pointed zelkova *shaku*	10,587	195,920	—	—	10,587	195,920
Obtuse ground-cypress „	3,476	51,686	—	—	3,476	51,686
Arbor-vitae „	129,115	396,927	—	—	129,115	396,927
Tsuga Sieboldi carr. „	7,771	42,720	—	—	7,771	42,720
Glandule-bearing oak „	9,391	26,768	—	—	9,391	26,768
Pine { Japanese „	5,690	35,428	—	—	5,690	35,428
Pine { American „	3,700	38,525	—	—	3,700	38,525
Teak „	460	17,921	—	—	460	17,921
Electric poles	20,759	111,887	—	—	20,759	111,887
Stones	—	129,206	—	—	—	129,206
Metal tubes	—	138,517	—	125,872	—	264,389

Continued.

Item	Home purchase		Foreign purchase		Total	
	Quantity	Value	Quantity	Value	Quantity	Value
		yen		*yen*		*yen*
Electric machines and materials...	—	1,083,346	—	1,269,853	—	2,353,199
Tools and machines	—	566,476	—	119,175	—	685,651
Clothing	—	524,074	—	—	—	524,074
Rubber work	—	202,610	—	—	—	202,610
Fabrics	—	335,779	—	—	—	335,779
Miscellaneous	—	3,964,573	—	126,750	—	4,091,323
Total	—	**30,180,838**	—	**2,900,375**	—	**33,081,213**

(5) SHRINKAGE OF FOREIGN PURCHASE.

The attention of the authorities had long been directed to the importance of superseding imports by home products. Apart from the growth of domestic industry which has gradually come to meet the multifarious requirements of railways, this policy of self-sufficiency has recently begun to be felt more keenly than ever in view of the conditions surrounding Japanese finance and economy in general. The best endeavours have therefore been used in this particular direction, with the result that the amount of foreign purchase has markedly been decreased, as may be seen from the following table showing a comparison between foreign and domestic purchase for the past four years.

Year	Home purchase	Foreign purchase	Total	Proportion of foreign purchase to total
	yen	*yen*	*yen*	*%*
1910–11...	28,040,178	6,530,186	**34,570,346**	.189
1911–12...	33,745,141	7,327,547	**41,072,688**	.178
1912–13...	36,287,754	6,075,619	**42,363,373**	.143
1913–14...	30,180,838	2,900,375	**33,081,213**	.088

CHAPTER XI.

EXPERIMENTS AND TESTS.

(1) CHEMICAL EXPERIMENTS ON RAILWAY MATERIALS.

Chemical experiments carried out in the Railway Laboratory numbered 5,946 cases, made up as follows :—

Cement (volcanic ashes included)	2,221
Sands	9
Clay	5
Bricks	425
Concrete	2
Stone	66
Coals	223
Water	485
Scales	5
Metals	440
Oils	712
Paints	146
Water-proof cloth	6
Indian rubber	783
Fabrics	262
Medicines	21
Thermometers and hydrometers	85
Gauge glasses	50

With a view to standardising the methods of test upon railway materials, all business relative to testing as had hitherto been attended to at the different district stores at Kobe, Sapporo and Moji was transferred to the charge of the district laboratories of the Testing Office of the President's Secretariat. The tests carried on at these laboratories during the year under review aggregated 2,083 cases, classified as under :—

Item	Kobe Laboratory	Moji Laboratory	Sapporo Laboratory
Cement (volcanic ashes included)	152	485	8
Bricks	12	65	—
Coals	—	24	—
Water	52	116	4
Metals	54	1	2
Oils	47	88	13
Paints	52	4	12
Indian rubber	113	1	—
Medicines	2	2	—
Soaps	4	—	—
Silex	2	—	—
Sheet asbestos	—	2	—
Antiseptic	762	—	—
Signal lamps	4	—	—
Total	**1,256**	**788**	**39**

Besides, tests are now in progress on concrete sand, silicate cotton, impermeables, puddles and other materials submitted for technical inspection by the different District Construction Offices.

(2) TESTS ON THE STRENGTH OF METALS.

Tests conducted on the strength of metals for railway use numbered 392 cases, made up as follows :—

Rails	8
Axles	2
Tyres	8

Shaft-couplings	12
Draw-bar	1
Springs	10
Parts of vehicles	7
Manometers	1
Implements	2
Steel and iron tubes	19
Wires	4
Chords and belts	11
Tube glass	114
Soft steel	79
Hard steel	7
Cast steel	14
Iron	14
Cast iron	25
Gun-metal and brass	20
Copper	13
Anti-friction metal	9
Moulding sands	4
Building materials	4
Carbonate	1
Cokes	3

Besides, tests were carried out on tyres made in Germany, while technical trials were conducted about the preventive measures against breaks of tyres.

A start was also made with the test on the corrosion of boiler tubes and the failure of tyres as well as on the relative merits of rails of various descriptions.

(3) TRIAL BURNING OF COAL AND TESTS ON LOCOMOTIVES.

The O-I Coal Testing Office was opened in September, 1913 and 29 cases of trial burning of coal were carried out during the year under review. It is expected that, with the installation of a traction dynamometer made by the Saler & Co. in the United States, tests will be carried out on solid and liquid fuels and cylinder oils of all descriptions, besides the test on the efficiency of superheated locomotives, on tractive power of locomotives of all kinds and on the consumption of coal and water as well as a trial of firemen's efficiency.

(4) TESTS ON SLEEPERS.

In view of the prospective shortage in the supply of Japanese chest-nut timber which forms the bulk of sleeper material in Japan, it was decided to conduct investigations about its possible substitutes. To that end in view, some 40,000 sleepers of Japanese chest-nut, obtuse ground cypress and 10 other kinds of trees were procured and some of them were laid on the different tracks in order to ascertain their actual wear and tear.

Further, experiments are now in progress on creosoting and bacteria in a laboratory provided for that special purpose.

CHAPTER XII.

PROJECTED RAILWAY MUSEUM.

With a view to creating a railway museum, as referred to in the preceding Reports, efforts were made toward completing the collection, the number of exhibits got together during the year totalling 906 pieces, made up as under :—

Permanent Way	32
Buildings	41
Traffic	379
Rolling Stock	12
Electricity	213
Rail and Water Link Facilities	15
Railway Materials	29
Supervision	95
Articles for General Reference	74
Miscellaneous	16

CHAPTER XIII.

RAILWAY STAFF.

(1) RAILWAY STAFF AND THEIR SALARIES AND WAGES.

Rank	Designation	Item	Year under review: No.	Year under review: Monthly sum of salaries or wages	Inc. or dec. (△) against preceding year: No.	Inc. or dec. (△) against preceding year: Monthly sum of salaries or wages
				yen		*yen*
Officials and Engineers of *chokunin* rank	President		1	625.00	—	—
	Vice-president		1	416.67	—	—
	Engineer-in-Chief		1	416.67	—	—
	Directors		6	1,858.32	—	8.34
	Engineers		10	3,274.99	△ 2	△ 774.99
	Total		**19**	**6,591.65**	△ **2**	△ **766.65**
Officials and Engineers of *sonin* rank	Secretaries		50	8,316.68	△ 8	△ 1,175.00
	President's private secretary		1	225.00	—	16.67
	Junior Secretaries		50	6,441.67	△ 14	△ 1,366.69
	Assistant secretaries		32	3,541.67	△ 12	△ 1,174.98
	Engineers		298	44,716.69	△ 51	△ 6,862.50
	Total		**431**	**63,241.71**	△ **86**	△ **10,662.50**
	Grand Total		**450**	**69,833.63**	△ **88**	△ **11,429.15**
	Average salary per capita			155.19		4.14
Officials and Engineers of *hannin* rank	Clerks	*male*	4,522	199,455.91	△ 221	△ 10,359.09
		female	4	106.00	△ 2	△ 39.00
	Assistant engineers		2,175	115,442.00	△ 115	△ 6,328.67
	Total	*male*	6,697	314,897.91	△ 336	△ 16,687.76
		female	4	106.00	△ 2	△ 39.00
		Total	**6,701**	**315,003.91**	△ **338**	△ **16,726.76**
	Average salary per capita			47.01		.12
Foremen (ranking as *hannin* rank officials)			**695**	**26,167.34**	**695**	**26,167.34**
Average salary per capita				37.65		37.65
Employees and Servants	Employees (clerical staff)	*male*	15,050	275,229.45	△ 884	△ 17,166.56
		female	759	6,955.89	37	375.63
	Employees (engineering staff)	*male*	12,275	258,123.25	1,188	14,436.77
		female	2	47.15	—	△ 6.27
	Total	*male*	27,325	533,352.70	304	△ 2,729.79
		female	761	7,003.04	37	369.36
		Total	**28,086**	**540,355.74**	**341**	△ **2,360.43**
	Average salary per capita			19.24		△ 32
	Women employed in office work		2	15.00	2	15.00
	Servants		920	11,150.63	5	428.14
	do., female		3	27.60	3	27.60
	Watchmen		2	37.80	△ 2	△ 30.03
	Guards		215	3,468.00	62	992.43
	Lithographers		21	438.19	—	20.15
	Printers		132	2,265.34	10	183.54
	do., female		13	97.80	△ 3	△ 19.30
	do., apprentice		5	41.40	—	△ 2.10
	Book-binders		43	761.10	2	△ 12.34
	do., female		28	209.70	10	57.01
	Foreman labourers, of regular employ		1	21.00	6	△ 96.11
	Labourers, of regular employ		2,075	31,641.41	△ 127	△ 771.47
	do., female		89	752.10	20	161.39
	Navvies		—	—	△ 24	△ 442.50
	Workmen, testing office		49	837.00	26	444.69
	Guards, warehouse		201	4,135.50	19	468.89
	Night watchmen		37	510.30	△ 9	△ 116.99
	Office boys		470	3,398.19	14	142.20
	Office girls		3	27.60	2	20.60
	Tool-keepers		40	560.70	△ 2	△ 34.28
	Watchmen, bridge		75	959.10	△ 17	△ 236.98
	do., female		19	107.70	△ 6	△ 19.75
	Watchmen, tunnel		195	1,343.13	14	△ 1,106.33
	do., female		29	136.50	△ 10	△ 39.91

(1) RAILWAY STAFF AND THEIR SALARIES AND WAGES.—*Continued.*

Rank	Item: Designation	Year under review: No.	Year under review: Monthly sum of salaries or wages	Inc. or dec. (△) against preceding year: No.	Inc. or dec. (△) against preceding year: Monthly sum of salaries or wages
			yen		*yen*
	Watchmen, level crossing	1,131	14,176.80	49	813.06
	do., female	1,908	9,627.60	47	652.55
	Labourers, surveying	299	5,744.63	△ 4	95.09
	Foremen, trackgang	414	10,042.80	10	314.23
	Trackmen	12,641	196,360.74	602	12,638.23
	Foremen, construction gang	80	2,325.90	△ 3	△ 104.15
	Labourers, construction	939	19,146.60	△ 67	△ 961.89
	do., female	—	—	△ 2	△ 12.47
	Carpenters, regular employ	521	11,564.70	△ 8	△ 75.90
	Watchmen, general articles	332	4,679.43	22	△ 395.54
	Errand boys	5	54.00	1	11.11
	Miners, regular employ	6	156.00	△ 6	△ 196.23
	Signalmen	336	5,439.90	35	706.44
	Greasers	501	6,201.52	26	341.98
	Coal-and-pumping men	2,514	35,771.58	246	3,304.43
	Engine cleaners	2,647	26,276.59	△ 41	△ 753.87
	Car inspectors	963	21,435.60	△ 62	△ 1,783.89
	Car inspectors' assistants	412	6,476.52	13	444.29
	Enginemen, feeder service	126	2,504.52	13	264.33
	Firemen, feeder service	76	1,302.60	6	111.18
	Lamp tenders	361	5,000.10	△ 31	△ 406.47
	Cleaners	1,113	12,744.60	69	841.63
	do., female	288	2,388.60	39	302.63
	Enginemen, workshop	15	401.40	2	37.32
	Firemen, workshop	79	1,585.92	2	37.40
	Tool-keepers, workshop	142	2,561.10	△ 22	△ 392.05
	Hydraulic crane operators' assistants	6	117.30	—	2.32
	Firemen, hydraulic crane	2	22.20	—	△ 1.22
	do., steam crane	3	79.80	1	24.44
	Coaling machine operators' assistants	13	223.80	1	20.01
	Firemen, coaling machine	12	177.30	—	△ 7.33
	Labourers, regular employ, coaling machine	48	555.90	7	39.42
	Firemen, apprentice	1,076	12,166.41	373	3,953.83
	Coppersmiths and labourers	213	5,111.10	41	1,020.34
Employees and Servants	do., female	5	40.50	5	40.50
	Mechanics and labourers, erecting shop	2,985	60,487.80	761	9,368.65
	do., female	3	28.80	3	28.80
	Smiths and labourers	1,555	30,948.00	266	4,029.84
	do., female	15	117.00	15	117.00
	Mechanics and labourers, boiler shop	2,356	47,071.20	472	5,325.91
	do., female	22	177.00	22	177.00
	Mechanics and labourers, lathe shop	1,641	29,976.30	647	8,105.44
	do., female	41	339.90	41	339.90
	Mechanics and labourers, casting shop	765	15,286.70	244	3,482.91
	do., female	78	616.80	78	616.80
	Sewers	353	6,918.90	△ 98	△ 1,359.15
	do., female	153	1,488.30	△ 45	36.78
	Machanics, and labourers, pattern shop	70	1,559.70	10	△ 14.06
	Mechanics and labourers, paint shop	1,090	20,678.10	262	3,467.40
	do., female	18	144.90	18	144.90
	Woodworkers and labourers	3,785	83,980.80	435	7,144.64
	do., female	56	459.60	56	459.60
	Turners and labourers	241	5,117.40	18	146.10
	do., femate	1	8.10	1	8.10
	Mechanics and labourers, finishing shop	1,433	27,288.53	401	5,116.79
	do., female	17	140.40	17	140.40
	Workmen, gas apparatus	20	338.70	6	99.01
	do., female	—	—	—	—
	Foremen mechanics	10	334.20	△ 481	△ 16,445.48
	Mechanics' helpers	618	7,937.10	△ 3,494	△ 41,324.35
	do., female	—	—	△ 202	△ 1,564.64
	do., apprentice	12	144.60	△ 532	△ 4,813.32
	Firemen, heating apparatus	—	—	—	—
	Foremen, porters	244	5,007.60	△ 14	△ 284.31
	Policemen	812	12,591.90	12	426.15
	Pointmen	4,535	67,655.07	305	3,953.75
	Goods porters	3,421	53,284.50	259	4,262.88
	Coupler hands	1,757	21,715.50	107	1,590.00
	Engine drivers, apprentice	2	24.00	△ 23	△ 280.17
	do., apprentice, electric loco	4	55.20	4	55.20
	Chauffer's helpers	1	9.00	1	9.00
	Greasers, power station	4	52.20	4	52.20
	Student mechanics	—	—	△ 1	△ 30.41
	Telephone operators	81	717.60	29	249.48
	do., female	36	269.70	2	16.95
	Porters	9,892	106,188.30	583	6,082.18
	do., female	18	166.80	2	26.27
	Brakemen	1,093	13,703.40	△ 37	△ 973.25
	Train boys	244	2,040.60	△ 69	△ 556.99
	Goods porters, train service	303	4,908.60	△ 93	△ 1,226.44
	Porters, train service	30	254.10	△ 39	△ 345.42

(1) RAILWAY STAFF AND THEIR SALARIES AND WAGES.—*Continued.*

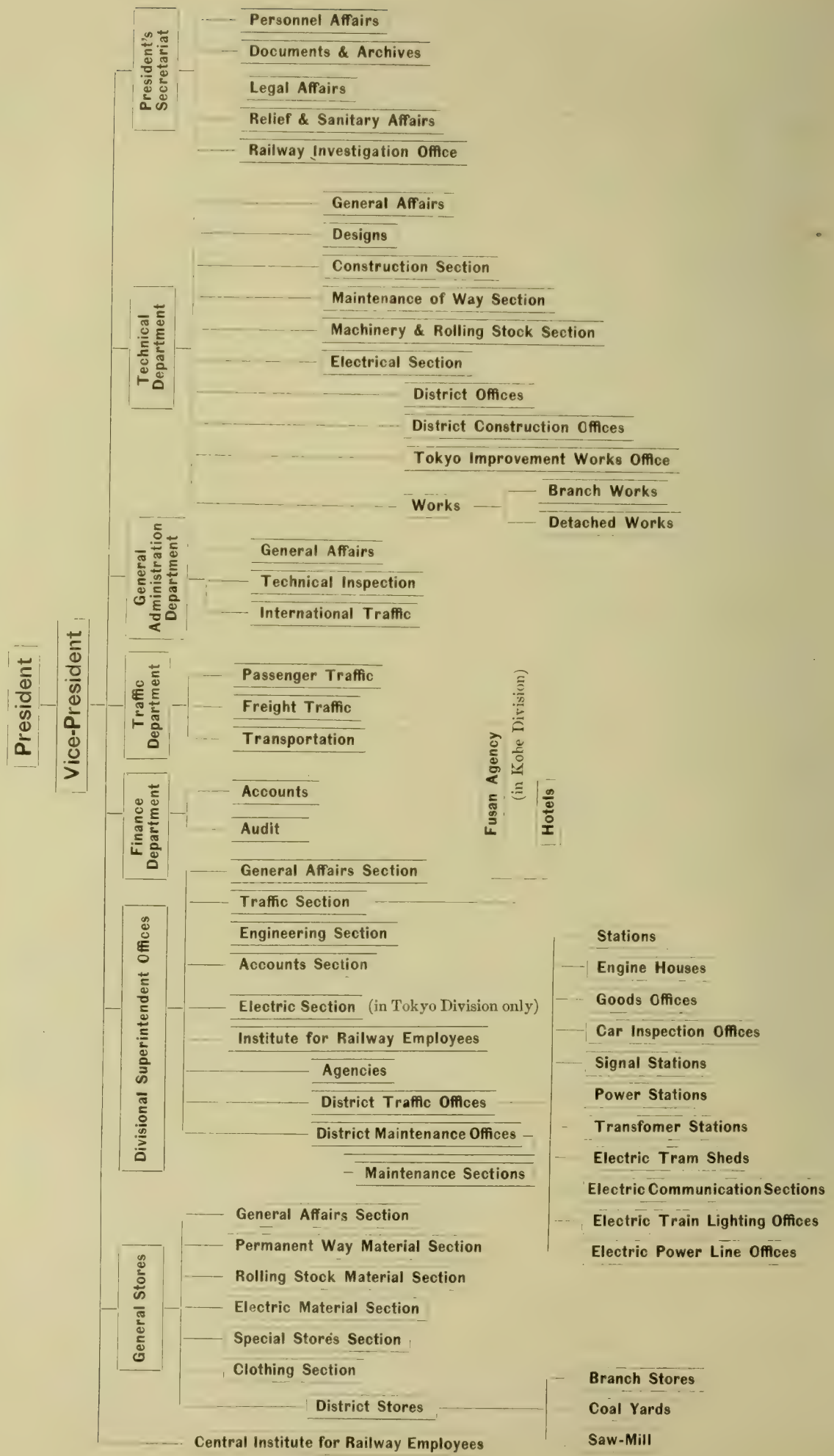
Rank	Designation	Year under review: No.	Year under review: Monthly sum of salaries or wages	Inc. or dec. (△) against preceding year: No.	Inc. or dec. (△) against preceding year: Monthly sum of salaries or wages
			yen		*yen*
Employees and Servants	Collection-and-delivery men, goods	146	2,929.20	△ 22	△ 503.02
	Foremen, electric wiring gang	36	950.10	—	5.07
	Labourers, electric wiring	652	11,029.73	13	587.37
	Mechanics, electric machines	324	6,233.32	79	1,283.46
	do., female	10	74.10	9	68.00
	Enginemen, power station	33	880.80	1	26.10
	do., apprentice	4	61.80	△ 1	△ 27.63
	Firemen, power station	47	960.30	△ 21	△ 405.10
	do., apprentice	8	105.90	△ 7	△ 86.95
	Apprentice greaser, power station	—	—	△ 4	△ 49.28
	Tenders, electric machines	70	1,290.00	8	138.11
	do., apprentice	15	188.40	△ 4	△ 35.78
	Inspectors, electric car	16	327.30	—	15.22
	do., electric lamps	108	1,999.80	17	317.46
	do., apprentice	84	1,048.80	△ 3	△ 9.38
	Workmen, electric apparatus	87	1,673.85	21	372.14
	Cooks, foreign meal	18	367.20	7	77.63
	Butlers	3	32.40	2	20.84
	Waiters, hotels	30	190.20	14	29.90
	do., female	10	25.20	10	25.20
	Cooks' helpers	7	98.10	—	△ 6.23
	do., female	1	9.60	—	.47
	Steersmen	64	1,116.90	7	120.44
	Greasers, steamship service	64	1,081.50	4	60.41
	Sailors	122	1,480.20	11	89.54
	Firemen, steamship service	140	1,670.70	3	31.24
	Shipwrights	12	293.40	△ 1	△ 13.81
	Waiters, steamship service	114	1,470.00	△ 2	29.46
	Coolies, steamship service	22	294.60	1	9.29
	Cooks, Japanese meal	22	409.50	2	42.98
	Ship's hands	177	3,438.30	50	924.66
	Total *male*	73,289	1,140,414.05	1,360	18,131.77
	female	2,866	17,496.90	134	1,827.38
	Total	**76,155**	**1,157,910.95**	**1,494**	**19,959.15**
	Average wages per capita		15.20		△ .04
	Grand Total *male*	108,456	2,084,665.36	1,935	13,452.41
	female	3,631	24,605.94	169	2,157.74
	Total	**112,087**	**2,109,271.30**	**2,104**	**15,610.15**
	Average wages per capita		18.82		△ .22

(2) REORGANISATION.

In connection with the re-adjustment of the general administration system undertaken in the year under review, the personnel of the railway staff as prescribed in the Regulations was reduced by 2 directors, (of *chokunin* rank), 33 secretaries and junior and assistant secretaries of *sonin* rank, 49 engineers of *chokunin* and *sonin* rank, 200 clerks of *hannin* rank, and 58 assistant engineers of *hannin* rank. Accordingly, 86 officials and engineers of *chokunin* and *sonin* rank, 528 clerks and assistant engineers, 675 servants were cashiered, a yearly sum of 705,861 yen in salaries and wages account being saved thereby.

The diagram showing the revised organization of the Imperial Government Railways is shown below :—

DIAGRAM SHOWING THE NEW ORGANISATION OF THE IMPERIAL GOVERNMENT RAILWAYS OF JAPAN.



(3) EDUCATION.

The efficiency of railway working can hardly be ensured through the guidance furnished by the rules and regulations alone. The necessity of technical training had long been felt by the railway authorities, but, apart from the temporary training provisions for student electric operators and technical apprentices, there were practically no efforts made in that particular line. To remedy this regrettable situation, it was decided in May, 1909 to provide an institution for giving professional education to railway servants. Pursuant to this decision, a certain number of district institutes were set up in the different Divisions in order to instruct servants in practical knowledge directly bearing on outdoor work, while, on the other hand, the Central Institute was created at the Head Office in Tokyo for the inculcation of railway technology of higher character for the benefit of students selected, through examination on the standard of the graduate of middle school course, from among the servants in the Head Office as well as graduates from the District Institutes. Special care was taken in filling up the classes with students possessed not only of a certain amount of scholarship, but also reliable character and practical ability as proved in their actual service.

Though the Institutes, both Central and District, had shown very satisfactory results the arrangements of their courses and curricula developed, in no few cases, a tendency to degenerate into the purely academic exercises of theory rather than the practical study of railroading. Accordingly, the regulations of both the Central and District Institutes were revised in 1913. The salient features of the revision were the establishment of more emphatic distinction between the two kinds of the Institutes, the Central being devoted to the scientific study of subjects bearing upon railway business in general, and the District being arranged to teach and train, for a term of six months, novice servants in practical affairs relative to station and engine house service. In the Central Institute, then, the courses were radically rearranged, and divided into four departments,—Railway Business, Mechanical Engineering, Electric and English Language, while the school term, too, was extended to 18 months inclusive of one month of practice prior to graduation.

The revision also involved the remodelling of the curricula, and those subjects which have relatively less importance to railway servants were struck off the list, thereby enabling the students to devote their undivided energies to the study of subjects of vital interest to their future careers.

Accompanying the classroom work, the students were taken at frequent intervals on school excursions in order to receive instructions on the spot, besides making a round of visits to various tourist points and manufacturing centres where they may observe the divers lines of modern industry, the situation of which has largely to do with the growth of freight traffic.

Lastly, in arranging the curriculum, special attention was paid to acquainting the students with general features of railway, in view of the fact that the minds of railway servants are too often liable to run in the narrow grooves defined by the scope of their immediate duties, even to the extent of wholly ignoring the relationship of their special lines of duty to the whole work of railway.

The curricula of the different courses of the Central Institute are shown below :—

1. **Railway Business Course**—Passenger and Freight Business, Outline of Vehicle and Motive Power Equipment, Traffic Returns, Construction and Maintenance of Way, Safety Working Arrangements, Train-Working, Electric Communication, English Language.

2. **Technical Course**—Outline of Mechanics, Steam and Electric Motive Power, Locomotives and Passenger and Freight Vehicles, Outline of Passenger and Freight Business, Drawing, Con-struction and Maintenance of Way, Safety Working Arrangements, Train-Working, Electric Communication, English Language.

3. **Electric Course**—Electricity and Magnetism, Motors and Generators, Electric Lighting and Power, Electric Traction, Outline of Rolling Stock and Motive Power, Drawing, Construction and Maintenance of Way, Safety Working Arrangements, Train-Working, Telephony and Telegraphy, English Language.

4. **English Language Course**—English Language, Outline of Passenger and Freight Business, Outline of Safety Working Arrangements and Train-Working, Element of Russian Language.

Dormitories were provided to bring up the students in regular habits under the charge of a special inspector, so that they may learn to qualify themselves for the life of co-operation essential to railway service in which the maintenance of discipline among the rank and file is of no less importance than in the army.

(A) Central Institute.

The roll of students at the Central Institute for the year under review were as follow :—

Admitted during the year under review :—		
Railway Business Course	A class ...	50
	B class ...	13
Electric Course		22
English Language Course		21
Total		106
Admitted in the preceding year :—		
Railway Business Course		41
Technical Course		10
Electric Course		10
Total		61
Grand total		**167**

During the year under review 77 students graduated from the Institute, made up as under :—

Railway Business Course	48
Technical Course	13
Electric Course	16

The total number of graduates from the Institute since its inception were

Railway Business Course	284
Technical Course...	129
Electric Course	16
English Language Course	56
Total	**495**

(B) District Institutes.

As stated above, the courses of the District Institutes were so arranged as to train novice servants in the

essentials of practical railway work. The following are the subjects of curriculum as specified in the District Institute Regulations:—

Business Course:—Passenger and Freight Business; Railway Construction; Safety Working Arrangements; Telegraphy and Telephony.

Technical Course:—Locomotives, Passenger Carriages and Goods Wagons, Drawing, Safety Working Arrangements, Train-Working.

The following are the list of graduates from the different district Institutes during the year under review:—

Course	Jurisdiction	Tokyo Division	Kobe Division	Kyushu Division	Hokkaido Division
Regular Course	Railway Business	71	99	56	91
	Technical	105	41		18
Special Training Course	for Conductors and Stationmen	86	60	102	—
	for Firemen	194	86	—	—
	for Electric Tram Drivers	22	—	—	—
	for Telegraph Operators	93	—	131	65
	for Car Inspectors	—	31	—	—
	for Engine Drivers	—	14	—	—

(4) CASUALTIES OF RAILWAY EMPLOYEES IN DISCHAGE OF DUTIES.

Item	Head Office		Tokyo Division		Kobe Division		Kyushu Division		Hokkaido Division		Construction Offices, Stores and Workshops		Grand Total	
	killed	*injured*	*killed*	*injured*	*killed*	*injured*	*killed*	*injured*	*killed*	*injured*	*killed*	*injured*	*killed*	*injured*
Officials of higher grade:—														
Accidents	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Negligence	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Causes unknown...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Officials of lower grade:—														
Accidents	—	1	—	1	1	7	—	1	—	3	—	—	1	13
Negligence	—	—	1	19	—	3	—	1	—	—	—	3	1	26
Causes unknown...	—	—	—	—	—	1	—	—	1	—	—	1	1	2
Total...	—	1	1	20	1	11	—	2	1	3	—	4	3	41
Employees:—														
Accidents	—	—	4	53	5	159	—	16	4	6	—	19	13	249
Negligence	—	—	19	306	5	89	1	43	1	83	—	19	26	540
Causes unknown...	—	3	—	—	—	—	—	—	—	—	—	—	—	3
Total...	—	3	23	359	10	248	1	59	5	89	—	38	39	792
Labourers:—														
Accidents	—	39	—	124	12	626	1	42	11	34	4	5,776	28	6,641
Negligence	—	34	48	1,436	52	582	18	261	14	425	4	8,265	136	11,006
Causes unknown...	—	6	—	—	10	2	—	—	—	6	—	406	10	420
Total...	—	79	48	1,563	74	1,210	19	303	25	465	8	14,447	174	18,067
Grand Total	—	**83**	**72**	**1,942**	**85**	**1,469**	**20**	**364**	**31**	**557**	**16**	**14,489**	**216**	**18,904**

CHAPTER XIV.

RELIEF ASSOCIATION.

The Relief Association of the Imperial Government Railways, which was created in April, 1907, forms an insurance institution for mutual relief of members and their families. All the railway servants engaged in outdoor work or inferiors are under obligation to join the Association. The members are bound to pay every month 3 per cent. of their stipends, while the Government grants an annual subsidy to the amount of 2 per cent. of the aggregate stipends derived from the members. These two items constitute the stock fund of the Association.

(1) MEMBERSHIP.

The membership of the Association is divided into three classes,—A, B, and C. The A class comprises those who are engaged in outdoor work and contribute every month to the Fund 3 per cent. of their stipends until the age-limit of 55 years is reached, and B clasr comprises employees engaged in office work or regulas

clerks who join the Association at their own option and pay to the fund 4 to 5 per cent. of their stipends. The members of the above two classes must be at least 6 months in the service before admission, the age-limit of their admission ranging between 15 and 50. The C class, the members of which are exempted from subscription, is composed of those who (a) have not yet passed six months in the service or are under 15 or above 50, and who (b) have completed the payment of subscription up to their age-limit of 55 years.

The roll of the Association on March 31st, 1914 comprised 102,352 representing 91.3 per cent. of the total employees of the Imperial Government Railways (112,087).

These are classified as under:—

A class	89,216
B class	636
C class	12,500

The above are further classified as under according to kind of service:—

Station Service	37,241
Engine House Service	20,919
Maintenance of Way Service	17,122
Workshop Service	16,464
Others	10,606

During the year under review 25,691 were admitted into the Association, being classified as under:—

Item	Year under review	Preceding year
Newly engaged in railway service	25,364	32,577
Transferred from indoor to outdoor service	287	153
Admitted at their own option	40	27
Total	**25,691**	**32,757**

23,262 members were struck off the list, the secessions being accounted for as follows:—

Item	Year under review	Preceding year
Retired from railway service	22,065	21,089
Promoted to officials of the *hannin* rank or transferred to indoor service	470	516
Summoned to the Colours	5	1,146
Died	722	800
Total	**23,262**	**23,851**

The following shows the mortalities of the membership as classified according to causes:—

Item	Year under review	Preceding year
Death from injuries sustained on duty	221	248
Death from injuries sustained not on duty	33	24
Suicide	8	7
Death from natural causes	460	521
Total	**722**	**800**

Mortalities caused by injuries sustained on duty and not on duty are classified as follows according to kind of service:—

Item	Death from injuries sustained	
	on duty	not on duty
Station Service	132	6
Engine House Service	31	8
Maintenance of Way Service	41	13
Workshop Service	9	5
Miscellaneous	8	1
Total	**221**	**33**

As regards deaths caused by injuries sustained on duty, 77 or 59 per cent. out of the 132 cases of station service are accounted for by coupler hands and porters, while out of the 41 cases of maintenance of way service, 34 or 83 per cent. are claimed by trackmen, the mortalities being for the most part attributable to heavy bruises.

The following table shows the number of mortalities out of every 10000 caused by the troubles in the respiratory and the digestive organs which form the greater part of deaths from natural causes :—

Item	Mortalities from	
	Respiratory organ troubles	Digestive organ troubles
Station Service	13.4	8.1
Engine House Service	14.8	7.6
Workshop Service	10.5	8.2
Maintenance of Way Service	26.1	14.6

From the above it will be seen that the troubles in the respiratory organ figure highest in the workshop and engine house services, and those of the digestive in the workshop service.

Though the total cases of mortality reached a big number of 722, it may be regarded as a reassuring sign that the record fell short of the estimated rate of mortality of 949 to the amount of more than 220.

The following shows the membership as classified by age. (The figures given below under "age" do not represent the results computed on the ordinary twelve-month basis, but are the number of consecutive calendar years each case has actually lived in, inclusive of the year of his birth and the year under review).

13–19	11,021
20–29	43,585
30–39	30,085
40–49	13,401
50–59	3,703
60–69	545
above 70	12
Average age	30 years and 2 months

Those ranging between 13 and 19 years account for a little less than 11 per cent. of the total, those between 20 and 29 for a little less than 43 per cent., those between 30 and 39 for a little over 29 per cent. and those between 40 and 49 for a little over than 13 per cent., while those above 50 represent no more than 4 per cent. and a little over, the highest percentage belonging to those between 20 and 29, and especially to those of 26 years old.

(2) REVENUE AND DISBURSEMENTS.

During the year the revenue of the Association totalled 1,095,865.345 yen consisting of 395,491.82 yen on account of Goverment subsidy, 545,056.48 yen for subscriptions from the members, 73,710.28 yen for bank interest, 52,294.24 yen for interest on bonds, 22,696.64 yen for receipts from the Tokiwa Hospital and dressing rooms, 276.545 yen for contributions from the interested public, 6,334.19 yen for miscellaneous receipts and 5.15 yen on suspense account.

The amount of disbursements paid out of the coffers of the Association during the year aggregated 610,873.60 yen consisting of 148,222.17 yen for 628 death grants, 144,773.90 yen for 683 injury grants, 5,575.28 yen for 89 old age grants, 135.29 yen for interest thereon for 75 cases, 81,151.94 yen for medical allowance made to 9,322 cases (including 3,330.22 yen paid to the Osaka Branch Hospital of the Red Cross Society), 173,355.62 yen for repayments made to 10,740 cases, 32,826.17 yen on account of the Hospital expenses, 15,194.76 yen for the dressing rooms expenses, 9,039.725 yen for the buildings, tools and machine expenses, and 598,745 yen for loss and depreciation.

The following table shows the amount of each item of the grants and payments as averaged per capita :—

Item	Year under review	Preceding year	Inc. or dec. (△)
	yen	*yen*	*yen*
Death grants	236.02	223.87	12.15
Injury grants	211.97	195.19	16.78
Old age grants	62.64	51.98	10.66
Interest on above	1.80	.81	.99
Medical allowance	11.06	12.02	.96
Repayments	16.14	13.22	2.92

The injury grants in the above table are further classified as follows according to grade of injury :—

Grade of Injury	No.	Amount	Average per capita.
		yen	*yen*
1st	225	93,545.50	415.76
2nd	19	6,570.00	345.79
3rd	117	21,322.00	182.24
4th	116	16,612.30	143.21
5th	206	6,724.10	32.64
Total	**683**	**144,773.90**	**211.97**

N. B.—The five grades of injury in the above table are :—1st grade (allowed a sum corresponding from one year and seven months to two years and six months of theirstipends), when the injuries sustained terminate in death of the sufferers; 2nd grade (from one year and seven months to two years and six months of their stipends), when disabled for life and personal wants cannot be satisfied without others' help owing to the loss of sight of both eyes or two limbs or more being disabled, or when injuries of corresponding nature have

been sustained; 3rd grade (from one year and one month to one year and six months of their stipends), when in consequence of one limb being disabled, it is impossible to engage in bread-earning employment though the remainder of their lives, through personal wants may be satisfied without others' help or when injuries of corresponding nature have been sustained; 4th grade (seven months to one year of their stipends), when obliged to retire from the service owing to irremediable impairment of their constitution, even when personal wants can be satisfied without others' help or when it is possible to engage in bread-earning employment; 5th grade (from one month to six months of their stipends), when the constitution is irremediably impaired, though remaining in the service.

During the year under review 7,039 cases received medical allowances and 683 cases, injury grants. In reviewing the general features of injuries sustained by the above cases, it will be noted that the injuries sustained by the workshop people are mostly slight, though their rate of injuries are relatively high; while as regards the injuries of employees connected with station, engine house and maintenance services, quite the reverse is the case, these being generally lower in proportion but heavier in nature of injury.

The following table shows the more important cases allowed injury grants as classified according to grade:—

Kind of Service	Grade of Injury	1st grade	2nd grade	3rd grade	4th grade	5th grade	Total
Station service... ...	Coupler hands	41	4	25	17	11	**98**
	Porters	34	4	26	11	12	**87**
	Pointmen	10	1	9	4	9	**33**
	Goods porters	7	1	4	5	6	**23**
	Brakemen	10	1	—	5	5	**21**
Engine house service	Firemen...	8	—	1	4	2	**15**
Maintenance service	Trackmen	35	1	9	5	22	**72**
Workshop service ...	Assistant mechanics	2	—	2	9	23	**36**
	Boiler shop hands	1	—	1	8	14	**24**
	Smiths	2	—	—	7	13	**22**

Further, in observing the proportion of injuries out of every 10000 of the membership, it will be noted that in station service the highest rate belongs to coupler hands with 573.4, followed by brakemen with 195.2, while as regards workshop service smiths come first with 215.5, next boiler shop mechanics with 176.3 and third assistant mechanics with 112.2.

(3) INJURIES SUSTAINED IN DISCHARGE OF DUTY.

The returns of injuries sustained in discharge of duty during the year under review are shown below:—

Divisional Offices...	Station Service	1,900
	Engine House Service	1,663
	Maintenance Service	771
	Others...	385
	Total	4,719
Works ...	Works provided with Dressing Rooms	13,992
	Works not provided with Dressing Rooms	1,946
	Total	15,938
Head Office, Stores and Construction and Improvement Works Offices		155
Grand Total...		**20,812**

As compared with the preceding year, the total sum of injuries increased by 1,926 or about 10 per cent, 99 per cent. of this increase being claimed by workshop people, while the returns of injuries in station, engine house and other services separately show more or less decrease. This remarkable increase in the injury returns of workshop people may be explained by the extension of facilities for medical treatment, it being now made possible to care for even slight injuries owing to the addition of 4 new dressing rooms to the existing list which had hitherto been confined to the six leading Works. That this formed no small factor in swelling the returns of injuries on duty for the year may further be testified to by the fact that the same returns of the Works provided with no dressing rooms showed a contrary phenomenon of decrease against the preceding year, apart from the consideration that the aggregate number of operatives given access to the medical treatment facilities figured up to 12,177 or 74 per cent. of the total.

Then, as regards the proportion of injuries out of every 10000 of the total staff, the employees of the different Divisional Offices claimed 58.9, a decrease of 1.8 against the preceding year, while the workshop people show a high rate of 932.3, being an increase of 130.4 or about 16 per cent. over the preceding year. However, averaging the total staff of the railway service, the rate stands no higher than 205.6 per 1000, being an increase of only 9 per cent. as compared with the preceding year.

(4) TOKIWA HOSPITAL AND DRESSING ROOMS.

The Tokiwa Hospital consists of six sections, i.e. internal, surgery, ophtalmology, otorhinolaryngology, and dermo-urinology. Dentistry section was opened in September, 1912. Patients are divided into three

classes, the first class being composed of those injured on duty, the second of passengers and the third of employees and their families. The following shows the in-patients as classified according to the sections and classes:—

Item	1st class		2nd class				3rd class				Total		
			Injuries		Diseases		Employees		Families				
	male	*female*	*male*	*female*	*male*	*female*	*male*	*female*	*male*	*female*	*male*	*female*	*total*
Internal	10	—	—	—	—	—	19	—	18	10	47	10	57
Surgery	132	—	5	1	—	—	10	—	37	6	184	7	191
Ophthalmology	15	—	—	—	—	—	8	—	4	1	27	1	28
Otorhinolaryngology	1	—	—	—	—	—	49	—	53	19	103	19	122
Dermo-urinology	—	—	—	—	—	—	13	—	13	2	26	2	28
Total	**158**	—	**5**	**1**	—	—	**99**	—	**125**	**38**	**389**	**39**	**426**

The out-patients who received treatment at the Hospital are made up as follows:—

Internal	Surgery	Dentistry	Ophthalmology	Otorhino-laryngology	Dermo-urinology	Total
2,176	1,390	901	1,060	1,134	953	**7,614**

The account for the Hospital during the year under review show 37,710.35 yen for receipts and 34,238.30 yen for disbursements.

During the year under review four new dressing rooms were created at the Hamamatsu, the Tsuchizaki, the Nagano and the Yukuhashi Works, the Hamamatsu being opened in June, the Tsuchizaki in September, 1913, and the Nagano and the Yukuhashi in January, 1914.

The following table shows the number of cases treated at the different dressing rooms and the expenses paid out of the coffers of the Association:—

Locality	No. of cases treated	Expenses
		yen
Omiya	3,948	3,256.86
Tsuchizaki	226	725.93
Shimbashi	2,204	3,233.96
Hamamatsu	1,600	1,136.87
Yokkaichi	430	766.42
Nagano	157	485.96
Kobe	1,467	1,702.97
Takatori	2,108	1,768.64
Kokura	1,186	1,692.31
Yukuhashi	154	424.84
Total	**13,480**	**15,194.76**

(5) INJURY GRANTS ACCOUNT.

The abstract of the injury grants account for the year under review is given as under:—

	yen
Disbursements estimated (half the sum of Government subsidy for the year under review	198,468.460
Disbursements actually made for	
Injury Grants	144,773.900
Medical Allowance	81,151.940
Treatment of Injuries on duty (paid to the Tokiwa Hospital)	14,623.840
Dressing Rooms Expenses	15,194.760
Total	**255,744.440**

From this it will be seen that the excess of the actual returns over the estimate amounts to more than 57,000 yen or 1.29 per cent., this rate showing a gradual decline since 1910.

(6) ASSETS AND LIABILITIES.

The following shows the assets and liabilities of the Association on March 31, 1914.

Assets:—	*yen*
Current Deposit	115,301.900
Fixed Deposit	1,160,000.000
Negotiable Bonds	1,169,247.000
Bank Interest receivable	18,315.290
Interest on Bonds receivable	21,218.630
Government Subsidies receivable	33,947.940
Subscriptions from Members receivable	26,100.550
Hospital Receipts unsettled	1,213.830
Advances	22,574.780
Tools and Machinery	10,963.140
Total	**2,578,883,060**

Liabilities:—	*yen*
Legal Reserve	2,397,116.250
Grants, Medical allowance, and Refunds payable, and hospital and dressing rooms expenses unsettled	26,718.130
Security Money kept in custody, etc.	235.270
Total	**2,424,069.650**
Balance (carried forward to the next year's account)	154,813.410

(7) ACTUAL ACCOUNT OF RECEIPTS AND DISBURSEMENTS.

The following is the actual account of receipts and disbursements on March 31st, 1914:—

Receipts:—	*yen*
Government Subsidy	395,491.820
Subscription from Members	545,056.480
Bank Interest	73,710.280
Interest on Bonds	52,294.240
Receipts from Hospital	22,696.140
Receipts from Dressing Rooms	.500
Contribution from the Public	276.545
Sundry Receipts	6,334.190
Payment in suspense	4.790
Repayments in suspense	.360
Total	**1,095,865.345**
Brought over from last year's account	1,982,131.940
Grand Total	**3,077,997.285**

Disbursements:—	*yen*
Death Grants	148,222.170
Injury Grants	144,773.900
Old Age Grants	5,575.280
Interest on Old Age Grants	135.290
Medical Allowance	81,151.940
Repayments	173,355.620
Hospital Expenses	32,826.170
Dressing Rooms Expenses	15,194.760
Buildings, Tools and Machinery	9,039.725
Losses and Depreciation	598.745
Total	**610,873.600**
Balance (carried forward to next year's account)	2,467,123.685

(8) MORTALITIES OF THE MEMBERS OF THE RELIEF ASSOCIATION ACCORDING TO CAUSES.

Item		Kind of Service	Station Service	Engine House Service	Workshop Service	Maintenance Service	Others	Total
Death by injuries	on duty	Run over	75	7	30	—	2	114
		Crushed	23	6	—	2	2	33
		Burnt	—	2	1	2	1	6
		Drowned	—	—	—	2	—	2
		Others	34	16	10	3	3	66
		Total	132	31	41	9	8	221
	not on duty	Run over	2	3	10	1	—	16
		Drowned	2	2	1	3	1	9
		Others	2	3	2	1	—	8
		Total	6	8	13	5	1	33
	Grand total		**138**	**39**	**54**	**14**	**9**	**254**
Suicide			1	2	—	5	—	8
Death from troubles in		Respiratory organs	50	31	18	43	23	165
		Nervous system and sense organs	12	7	13	18	10	60
		Digestive organs	30	16	14	24	9	93
		Blood circulation system	14	5	14	6	1	40
		Urino-genital organs	10	4	7	3	3	27
		Acute epidemics	14	6	4	4	5	33
		Kakke	9	5	1	3	2	20
		Others	10	3	2	2	5	22
		Total	149	77	73	103	58	460
Sum total			**288**	**118**	**127**	**122**	**67**	**722**
Total for 1912–13			352	115	127	110	96	800

APPENDIX

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PROGRESS OF IMPERIAL GOVERNMENT RAILWAYS

1. Officials in Charge of State Railways Since the Inauguration of the Service.

Tenure of Office	Title	Name
March—July 1870	Director	Mr. Kagenori Ueno.
	Vice-Director	Mr. Maremasa Hirai
August—October 1870	Director	Mr. Tomozane Yoshii
October 1870—August 1871	Director	Mr. Masaru Inouye
August 1871—January 1877	Director	do.
	Vice-Director	Mr. Sukemasa Ota
January 1877—March 1893	Director	Viscount Masaru Inouye
March 1893—March 1903	Director	Dr. Soichiro Matsumoto
March 1903	Acting Director	Dr. Seijiro Hirai
March—December 1903	Director	Dr. Kintake Furuichi
December 1903—October 1904	Acting Director	Dr. Seijiro Hirai
October 1904—March 1907	Director	do.
April 1907—December 1908	President	do.
	Vice-President	Mr. Ichiji Yamanouchi
December 1908—August 1911	President	Baron Shimpei Goto
	Vice-President	Dr. Seijiro Hirai
August 1911—December 1912	President	Mr. Takashi Hara
	Vice-President	Dr. Seijiro Hirai
December 1912—February 1913	President	Baron Shimpei Goto
	Vice-President	Dr. Seijiro Hirai
February—May 1913	President	Mr. Takejiro Tokonami
	Vice-President	Dr. Seijiro Hirai
May—December 1913	President	Mr. Takejiro Tokanami
	Vice-President	Dr. Ryutaro Nomura
December 1913	President	Mr. Takejiro Tokonami
	Vice-President	Mr. Sakajiro Furukawa

2. Mileage Open to Traffic.

Year	Mileage open to traffic	Average mileage worked	Mileage open to traffic according to track					Track mileage	No. of stations	No. of stations per 10 miles of track
			Single	Double	Triple	Quadruple and more	Total			
	mile	*mile*	*m.ch.*	*m.ch.*	*m.ch.*	*m.ch.*	*m.ch.*	*m.ch.*		
1886–1887	208.8	195.0	189.61	19.03	—	—	208.64	—	57	2.7
1887–1888	244.5	235.7	225.37	19.03	—	—	244.40	—	64	2.6
1888–1889	445.2	335.3	426.16	19.03	—	—	445.19	—	97	2.2
1889–1890	550.6	534.0	509.41	41.08	—	—	550.49	—	113	2.1
1890–1891	550.6	550.6	509.41	41.08	—	—	550.49	—	115	2.1
1891–1892	550.6	550.6	509.41	41.08	—	—	550.49	—	117	2.1
1892–1893	550.6	550.6	509.41	41.08	—	—	550.49	—	117	2.1
1893–1894	557.6	557.6	516.41	41.08	—	—	557.49	698.27	7	2.1
1894–1895	580.9	565.3	529.57	51.12	—	—	580.69	757.47	122	2.1
1895–1896	593.3	586.4	532.70	60.32	—	—	593.22	792.18	127	2.1
1896–1897	631.8	620.7	545.26	86.36	—	—	531.62	870.64	134	2.1
1897–1898	661.8	647.7	575.29	86.36	—	—	661.65	910.17	139	2.1
1898–1899	718.1	691.7	583.07	134.79	—	—	718.06	1,009.43	151	2.1
1899–1900	749.3	747.9	593.13	156.11	—	—	749.24	1,082.75	163	2.2
1900–1901	823.4	801.4	639.69	180.42	3.04	—	823.35	1,197.41	176	2.1
1901–1902	905.4	873.9	678.71	223.34	3.04	—	905.29	1,344.53	192	2.1
1902–1903	1,062.6	976.9	810.79	248.34	3.04	—	1,062.37	1,555.05	227	2.1
1903–1904	1,146.0	1,104.4	868.45	274.26	3.04	—	1,145.75	1,688.74	250	2.2
1904–1905	1,211.0	1,174.9	925.02	282.66	3.04	—	1,210.72	1,785.12	263	2.2
1905–1906	1,469.9	1,470.4	1,209.28	287.22	3.04	—	1,499.54	2,121.65	315	2.1
1906–1907	3,093.2	2,150.2	2,701.08	385.64	3.64	Quadruple 1.33	3,092.09	4,319.42	722	2.3
1907–1908	4,444.8	3,982.3	3,984.36	454.39	3.64	„ 1.33	4,444.12	6,155.79	1,153	2.6
1908–1909	4,542.9	4,512.8	3,981.28	555.63	3.64	„ 1.33	4,542.28	6,432.50	1,175	2.6
1909–1910	4,624.4	4,580.2	3,994.28	624.16	.40	„ 4.57	4,623.61	6,624.58	1,212	2.6
1910–1911	4,870.3	4,767.3	4,213.37	651.02	.40	„ 4.57	4,869.56	7,052.61	1,288	2.6
1911–1912	5,044.1	4,950.3	4,358.55	679.28	.40	„ 4.57	5,043.20	7,474.27	1,389	2.8
1912–1913	5,217.0	5,129.0	4,497.12	714.67	.40	Quadruple 3.24 Quintuple .56 Sextuple .57	5,217.16	7,774.46	1,441	2.8
1913–1914	5,472.7	5,348.1	4,731.36	734.11	.40	Quadruple 3.24 Quintuple .133	5,470.64	8,200.68	1,592	2·8

N.B.—The returns of the above table do not include the railways in Chosen, Formosa, South Manchuria and Karafuto (saghalien), and also private railway lines except the leased lines.

Year	Traffic												
	Train mileage				Average No. of trains per day	Vehicle mileage					Average per day per vehicle		Average No. of vehicles per train
	Passenger trains	Goods trains	Mixed trains	Total		Passenger carriages	Electric trams	Steam motor cars	Goods wagons	Total	Pass. carriages	Goods wagons	
	mile	*mile*	*mile*	*mile*		*mile*	*mile*	*mile*	*mile*	*mile*	*mile*	*mile*	
1889–1890	—	—	—	—	—	—	—	—	—	—	—	—	—
1890–1891	1,895,774	613,475	411,022	2,920,271	14.5	25,256,463	—	—	11,290,108	36,546,571	—	—	12.5
1891–1892	2,067,522	713,035	521,743	3,302,300	16.4	26,721,762	—	—	13,959,506	40,681,268	109.4	24.1	12.3
1892–1893	2,027,328	868,184	640,757	3,536,269	17.6	27,114,262	—	—	18,532,054	45,646,316	107.0	29.5	12.9
1893–1894	2,016,170	896,447	815,320	3,777,937	18.3	28,768,067	—	—	20,246,395	49,014,462	109.7	35.8	13.1
1894–1895	2,083,795	1,088,655	1,002,188	4,174,638	20.2	32,105,223	—	—	23,937,259	56,042,482	118.8	38.9	13.4
1895–1896	2,379,842	1,201,894	749,273	4,331,009	20.2	36,430,289	—	—	26,480,420	62,910,709	127.5	40.3	14.5
1896–1897	2,336,097	1,283,151	1,187,448	4,806,696	21.2	40,738,974	—	—	24,586,784	65,325,758	125.1	33.3	13.6
1897–1898	2,179,423	1,455,659	1,723,027	5,358,109	22.7	43,428,576	—	—	31,423,699	74,852,275	130.5	36.0	14.0
1898–1899	2,485,388	1,878,370	2,132,503	6,496,351	25.7	49,570,516	—	—	38,966,603	88,537,119	137.6	40.1	13.6
1899–1900	2,511,050	2,107,590	2,516,708	7,135,348	26.1	50,754,499	—	—	52,530,745	103,285,244	129.3	53.1	14.5
1900–1901	2,742,301	2,616,617	2,517,987	7,879,905	26.9	55,042,929	—	—	63,291,330	118,334,259	131.4	54.1	15.0
1901–1902	2,699,042	2,391,520	7,883,973	7,979,535	25.0	57,557,094	—	—	63,019,304	120,576,398	127.5	49.0	15.1
1902–1903	2,883,261	2,452,584	3,094,347	8,430,192	23.6	61,742,311	—	—	69,055,106	130,797,417	125.5	42.0	15.5
1903–1904	3,462,288	2,851,775	3,416,604	9,730,667	24.1	70,567,027	—	—	77,714,472	148,281,499	126.5	40.7	15.2
1904–1905	2,447,212	2,110,066	3,543,471	9,100,749	21.2	61,126,811	—	—	85,066,933	146,193,744	102.4	51.3	16.1
1905–1906	2,530,128	2,787,045	4,393,091	10,710,264	20.0	68,017,379	—	—	108,578,253	176,595,632	105.4	58.2	16.5
1906–1907	5,643,474	7,324,632	5,992,371	18,960,477	24.2	109,796,145	414,520	—	201,877,638	311,673,783	110.7	44.5	16.4
1907–1908	12,001,780	14,101,480	11,457,928	37,561,188	25.8	221,687,230	819,327	—	413,775,971	635,463,201	135.0	43.1	16.9
1908–1909	14,073,162	16,899,070	12,450,735	43,422,967	26.4	253,762,068	1,021,137	—	518,082,833	771,844,901	133.8	47.8	17.8
1909–1910	14,283,152	15,455,959	12,696,717	42,435,828	25.4	255,051,199	1,442,347	32,857	515,180,547	770,231,746	127.6	48.0	18.2
1910–1911	15,660,056	16,394,111	12,716,551	44,770,718	25.7	270,219,524	3,256,659	33,011	561,736,521	831,956,045	128.4	49.6	18.6
1911–1912	17,594,094	18,408,601	12,728,089	48,730,784	26.9	291,880,707	3,818,820	147,667	607,749,146	899,629,853	111.3	46.1	18.5
1912–1913	20,346,945	20,904,690	12,742,297	53,993,932	28.8	320,287,931	4,686,914	288,790	662,992,352	988,255,987	115.7	46.2	18.3
1913–1914	22,364,524	22,809,091	12,229,188	57,402,803	29.4	339,847,087	4,951,090	425,638	736,984,397	1,082,208,212	114.8	48.2	18.9

N.B.—In the train mileage since 1906 is included the number of miles run by electric trams and steam motor cars computed at the rate of 10 cars=1 train.

3. Traffic Returns.—*Continued.*

Year	Traffic																
	Passengers																
	No. of passengers carried				No. of passengers carried one mile				Average mileage travelled per passenger				Out of every 1000 passengers			Average No. of passengers per vehicle mile	Average No. of travels per capita of population
	1st class	2nd class	3rd class	Total	1st class	2nd class	3rd class	Total	1st class	2nd class	3rd class	Total	1st class	2nd class	3rd class		
1886–1887	—	—	—	3,761,473	—	—	—	—	—	—	—	—	—	—	—	—	.31
1887–1888	—	—	—	5,919,383	—	—	—	—	—	—	—	—	—	—	—	—	.74
1888–1889	—	—	—	8,404,776	—	—	—	—	—	—	—	—	—	—	—	—	.63
1889–1890	—	—	—	11,365,937	—	—	—	—	—	—	—	—	—	—	—	—	.82
1890–1891	—	—	—	11,265,383	—	—	—	284,831,381	—	—	—	25.3	—	—	—	11.28	.74
1891–1892	—	—	—	11,787,913	—	—	—	270,063,493	—	—	—	22.9	—	—	—	10.11	.77
1892–1893	—	—	—	12,873,547	—	—	—	298,858,693	—	—	—	23.2	—	—	—	11.02	.84
1893–1894	80,731	739,813	13,623,783	14,444,327	3,145,387	22,366,736	316,115,212	341,627,335	39.0	30.2	23.2	23.7	6	51	943	11.88	.93
1894–1895	86,550	785,074	14,012,362	14,883,986	3,556,639	25,266,614	474,713,535	403,536,788	41.1	32.2	26.7	27.1	6	53	941	12.57	.94
1895–1896	128,437	1,142,306	17,493,644	18,764,387	5,437,247	37,450,124	480,157,208	523,044,579	42.3	32.8	27.4	27.9	7	61	932	14.36	1.17
1896–1897	152,288	1,452,290	21,146,171	22,750,749	6,022,848	41,822,615	488,079,940	535,925,403	39.5	28.8	23.1	23.6	7	64	929	13.16	1.45
1897–1898	193,038	1,826,986	25,902,553	27,922,577	6,943,791	49,604,301	566,787,835	623,335,927	36.0	27.2	21.9	22.3	7	65	928	14.35	1.65
1898–1899	223,657	2,010,511	29,215,371	31,449,539	7,609,335	52,387,027	612,572,345	673,068,707	34.0	26.3	21.0	21.4	7	64	928	13.58	1.76
1899–1900	197,576	1,992,779	26,117,963	28,308,318	7,282,259	57,755,732	564,509,720	629,547,711	36.9	29.0	21.6	22.2	7	70	923	12.40	1.34
1900–1901	204,803	2,259,768	28,995,374	31,459,645	8,370,432	66,425,529	631,610,735	706,406,690	40.9	29.4	21.8	22.5	6	72	922	12.83	1.52
1901–1902	195,460	2,091,526	29,309,415	31,596,401	8,947,468	64,495,881	643,515,674	716,959,023	45.8	30.8	22.0	22.7	6	66	928	12.46	1.41
1902–1903	207,905	2,023,665	29,170,092	31,401,662	9,534,171	66,551,048	647,126,290	723,211,509	45.9	32.9	22.2	23.0	7	64	929	11.71	1.36
1903–1904	229,321	2,105,747	31,143,127	33,478,195	10,870,151	79,581,450	719,975,039	810,426,640	47.4	37.8	23.1	24.2	7	63	930	11.48	1.26
1904–1905	172,501	1,657,158	26,387,534	28,217,193	8,558,821	69,436,687	732,022,097	810,017,605	49.6	41.9	27.7	28.7	6	59	935	13.25	1.10
1905–1906	221,649	1,990,154	28,815,161	31,026,964	12,753,306	93,050,154	839,263,364	945,066,824	67.5	46.8	29.1	30.5	7	64	929	13.89	1.21
1906–1907	274,920	2,845,902	44,446,098	47,566,920	16,430,329	126,232,526	1,082,073,966	1,224,736,821	56.8	44.4	24.3	25.7	6	60	934	11.15	1.29
1907–1908	365,345	5,131,893	95,618,501	101,115,739	24,045,697	219,497,987	2,109,727,081	2,353,270,765	65.8	42.8	22.1	23.3	3	51	646	10.62	2.21
1908–1909	396,449	6,257,064	116,574,030	123,227,543	26,131,252	263,721,910	2,453,350,696	2,743,203,558	65.9	42.1	21.0	22.3	3	51	946	10.81	2.64
1909–1910	410,707	6,327,549	121,568,704	128,306,960	27,971,459	273,212,346	2,511,145,303	2,812,329,108	68.1	43.2	20.7	21.9	3	49	946	11.03	2.72
1910–1911	432,925	6,500,601	131,706,180	138,629,706	29,454,126	297,285,823	2,711,997,917	3,038,736,966	69.6	45.7	20.6	21.9	3	47	950	11.25	2.91
1911–1912	444,102	7,068,115	143,565,562	151,077,779	31,779,624	334,521,041	3,016,285,746	3,382,586,411	71.6	47.3	21.0	22.4	3	47	950	11.59	3.09
1912–1913	470,237	7,414,035	152,827,465	160,711,737	33,539,259	367,907,593	3,224,869,647	3,626,316,499	71.3	49.6	21.1	22.6	3	46	951	11.15	3.25
1913–1914	426,641	7,436,144	159,910,358	167,773,143	31,224,220	379,600,689	3,280,139,710	3,690,964,619	73.2	51.0	20.5	22.0	3	44	953	10.69	3.34

N.B.—The average number of travels per capita of the population is computed on the number of inhabitants in the prefectures traversed by the State lines.

Year	Goods																
	Traffic																
	Parcels and luggage carried		Tonnage of goods hauled				Aggregate tonnage of goods hauled one mile				Average mileage travelled per ton of goods				Average tonnage per vehicle mile	Average tonnage of goods per capita
	Parcels	Luggage	Total	Ordinary consignment	Express consignment	Carload consignment	Total	Ordinary	Express	Carload	Total	Ordinary	Express	Carload	Total		
	ton	*ton*	*ton*	*ton*	*ton*	*ton*	*ton*	*ton*	*ton*	*ton*	*ton*	*mile*	*mile*	*mile*	*mile*	*ton*	*ton*
1886–1887	—	—	—	—	—	—	419,707	—	—	—	—	—	—	—	—	—	.03
1887–1888	—	—	—	—	—	—	569,232	—	—	—	—	—	—	—	—	—	.05
1888–1889	—	—	—	—	—	—	699,154	—	—	—	—	—	—	—	—	—	.05
1889–1890	—	—	—	—	—	—	616,892	—	—	—	—	—	—	—	—	—	.04
1890–1891	—	—	4,006	—	—	—	671,361	—	—	—	25,744,580	—	—	—	38.3	2.2	.04
1891–1892	—	—	4,690	—	—	—	806,511	—	—	—	30,456,870	—	—	—	37.8	2.2	.05
1892–1893	—	—	5,487	—	—	—	982,404	—	—	—	44,827,316	—	—	—	45.6	2.4	.05
1893–1894	—	—	5,188	—	—	—	1,076,689	—	—	—	54,432,438	—	—	—	50.6	2.7	.07
1894–1895	—	—	7,431	250,633	—	767,695	1,018,298	10,463,059	—	61,870,945	72,354,004	41.7	—	80.6	71.0	3.0	.06
1895–1896	—	—	8,086	302,714	—	797,345	1,100,059	12,712,572	—	64,110,514	76,823,086	42.0	—	80.4	69.8	2.9	.07
1896–1897	—	—	10,720	239,779	—	1,026,340	1,266,119	9,266,149	—	65,068,670	74,334,819	38.6	—	63.4	58.7	3.0	.08
1897–1898	—	—	15,064	260,761	—	1,297,433	1,558,194	9,832,599	—	89,648,278	99,486,877	37.7	—	69.1	63.8	3.2	.09
1898–1899	—	—	16,130	285,642	2,236	1,477,581	1,765,459	11,324,864	639,733	120,530,900	132,495,497	39.6	286.1	81.6	75.0	3.4	.10
1899–1900	—	—	19,050	390,103	4,982	1,910,939	2,306,024	13,244,941	1,198,128	160,863,653	175,309,722	34.0	240.5	84.2	76.0	3.3	.11
1900–1901	—	—	21,898	433,378	6,908	2,201,737	2,642,023	14,730,303	1,633,572	203,615,766	219,979,641	34.0	236.5	92.5	83.3	3.5	.13
1901–1902	14,653	2,071	16,724	323,652	11,440	2,181,049	2,516,141	13,182,332	2,579,463	195,832,835	211,594,630	40.7	225.5	89.8	84.1	3.4	.11
1902–1903	14,106	2,011	16,117	336,262	15,118	2,620,350	2,971,730	13,557,195	3,448,510	224,277,362	241,283,097	40.3	228.1	85.6	81.2	3.5	.13
1903–1904	15,824	2,403	18,227	345,162	14,482	2,885,022	3,244,666	14,125,914	3,333,644	258,063,225	275,522,813	40.9	230.2	89.4	84.9	3.5	.12
1904–1905	20,546	2,425	22,971	359,950	11,404	2,955,594	3,326,948	19,665,004	2,734,595	310,444,485	332,844,084	54.6	239.8	105.0	100.0	3.9	.13
1905–1906	24,674	3,750	28,424	480,558	24,323	3,893,613	4,403,494	25,219,040	5,410,911	367,059,762	397,689,713	52.5	222.5	94.2	90.3	3.7	.17
1906–1907	30,448	4,672	35,120	882,349	25,853	6,712,326	7,620,528	61,789,035	6,378,986	645,346,334	713,514,355	70.0	246.7	96.1	93.6	3.5	.21
1907–1908	47,940	7,076	55,016	1,920,933	30,450	16,360,790	18,312,223	153,695,717	8,144,427	1,279,284,867	1,441,125,013	80.0	267.5	78.2	78.7	3.5	.40
1908–1909	55,661	8,358	64,019	2,270,392	28,349	21,225,818	23,524,559	190,760,274	7,806,657	1,630,862,227	1,829,429,158	84.0	275.4	76.8	77.8	3.5	.50
1909–1910	58,585	9,749	68,334	2,335,753	27,197	21,292,670	23,655,620	202,980,717	7,391,377	1,700,825,346	1,911,197,440	86.9	271.8	79.9	80.8	3.7	.50
1910–1911	65,420	9,447	74,867	2,579,606	27,789	22,874,473	25,481,868	234,195,572	7,623,992	1,885,014,909	2,126,834,473	90.8	274.4	82.4	83.5	3.8	.52
1911–1912	74,631	10,586	85,217	2,811,202	26,644	26,499,208	29,337,054	260,506,546	7,357,152	2,080,077,777	2,347,871,475	92.7	276.1	78.5	80.0	3.9	.60
1912–1913	98,103	11,377	109,480	2,998,720	25,352	29,513,273	32,537,345	283,246,117	6,963,632	2,401,254,425	2,691,464,174	94.5	274.7	81.4	82.7	4.1	.64
1913–1914	110,851	11,969	122,820	3,316,953	24,353	33,007,056	36,348,362	313,223,777	6,532,378	2,734,096,483	3,053,852,638	94.4	268.2	82.8	84.0	4.1	.72

N.B.—The average tonnage of goods per capita of the population is compted on the number of inhabitants in the prefectures traversed by the State lines.

Year	Traffic																		
	Passenger Earnings															Parcels and Luggage			Postal matter
	1st class	2nd class	3rd class	Total	Average per passenger				Average per pass. per mile				Out of every 1000 *yen* of earnings						
					1st class	2nd class	3rd class	Total	1st class	2nd class	3rd class	Total	1st class	2nd class	3rd class	Parcels	Luggage	Total	
	yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
1890–1891	—	—	—	3,183,383	—	—	—	.283	—	—	—	.0112	—	—	—	—	—	97,911	31,651
1891–1892	—	—	—	3,026,869	—	—	—	.257	—	—	—	.0112	—	—	—	—	—	101,804	34,927
1892–1893	—	—	—	3,335,609	—	—	—	.259	—	—	—	.0112	—	—	—	—	—	126,497	35,322
1893–1894	—	—	—	3,791,501	—	—	—	.262	—	—	—	.0111	—	—	—	—	—	120,449	46,573
1894–1895	—	—	—	4,229,005	—	—	—	.234	—	—	—	.0105	—	—	—	—	—	179,685	54,067
1895–1896	—	—	—	5,656,410	—	—	—	.301	—	—	—	.0108	—	—	—	—	—	212,317	56,985
1896–1897	—	—	—	5,984,581	—	—	—	.263	—	—	—	.0112	—	—	—	—	—	269,738	74,528
1897–1898	—	—	—	7,003,795	—	—	—	.251	—	—	—	.0112	—	—	—	—	—	372,548	91,819
1898–1899	—	—	—	7,692,869	—	—	—	.245	—	—	—	.0114	—	—	—	—	—	375,223	111,184
1899–1900	—	—	—	9,313,140	—	—	—	.325	—	—	—	.0146	—	—	—	—	—	417,675	144,420
1900–1901	—	—	—	10,313,117	—	—	—	.328	—	—	—	.0146	—	—	—	—	—	447,117	169,406
1901–1902	353,612	1,454,161	8,684,333	10,492,106	1.809	.695	.296	.332	.0395	.0225	.0135	.0146	34	138	828	314,753	88,967	403,720	196,586
1902–1903	391,381	1,625,516	9,348,849	11,365,746	1.882	.803	.320	.362	.0411	.0244	.0144	.0157	34	143	823	323,246	82,569	405,815	226,922
1903–1904	436,886	1,908,565	10,084,584	12,430,035	1.905	.906	.324	.371	.0402	.0240	.0140	.0153	35	154	811	355,517	93,506	449,023	245,646
1904–1905	333,127	1,723,573	9,622,752	11,679,452	1.931	1.040	.365	.414	.0389	.0248	.0131	.0144	28	148	824	431,713	87,178	518,891	249,013
1905–1906	513,474	2,122,470	10,881,689	13,517,633	2.317	1.066	.373	.436	.0403	.0228	.0130	.0143	38	157	805	470,873	100,320	571,193	294,628
1906–1907	640,806	2,925,123	15,459,349	19,025,278	2.331	1.028	.348	.400	.0290	.0232	.0143	.0155	34	154	812	754,855	149,843	904,698	449,873
1907–1908	864,939	4,602,695	29,646,132	35,113,766	2.367	.897	.310	.347	.0360	.0210	.0141	.0149	25	121	844	1,238,378	244,349	1,482,727	829,105
1908–1909	849,416	5,007,936	33,230,610	39,087,962	2.143	.800	.285	.317	.0325	.0190	.0135	.0142	22	128	850	1,380,853	285,694	1,666,547	948,024
1909–1910	872,912	5,065,207	33,432,413	39,370,532	2.125	.801	.275	.307	.0312	.0185	.0133	.0140	22	129	849	1,630,511	282,332	1,912,843	974,773
1910–1911	949,446	5,645,563	35,549,987	42,144,996	2.245	.868	.270	.304	.0322	.0190	.0131	.0139	23	134	843	1,881,122	308,205	2,189,327	980,379
1911–1912	1,016,166	6,323,073	39,527,075	46,866,314	2.288	.895	.275	.310	.0320	.0189	.0131	.0139	22	135	843	2,159,464	375,368	2,534,832	1,006,562
1912–1913	1,115,375	7,050,567	41,827,653	49,993,595	2.372	.951	.274	.311	.0333	.0192	.0130	.0138	22	141	837	2,584,899	381,965	2,966,864	1,051,475
1913–1914	1,047,939	7,311,965	43,003,764	51,363,668	2.456	.983	.269	.306	.0336	.0193	.0131	.0139	21	142	837	2,830,222	389,046	3,219,268	1,063,792

3. Traffic Returns.—*Continued.*

Year	Traffic — Goods Earnings — Ordinary consignment	Express consignment	Carload consignment	Total	Average per ton — Ordinary	Carload	Express	Total	Average per ton per mile — Ordinary	Carload	Express	Total	Terminal charges	Average terminal charges per ton	Average terminal charges per ton per mile	Shipping receipts
	yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
1890–1891	350,697	—	428,101	778,798	—	—	—	1.160	—	—	—	.0303	—	—	—	—
1891–1892	340,651	—	489,394	830,045	—	—	—	1.029	—	—	—	.0273	—	—	—	—
1892–1893	414,386	—	660,956	1,075,342	—	—	—	1.095	—	—	—	.0240	—	—	—	—
1893–1894	477,089	—	766,261	1,243,350	—	—	—	1.155	—	—	—	.0228	—	—	—	—
1894–1895	612,332	—	977,234	1,589,566	2.443	1.273	—	1.561	.0585	.0158	—	.0220	—	—	—	—
1895–1896	738,757	—	1,069,732	1,808,489	2.440	1.342	—	1.644	.0581	.0167	—	.0235	—	—	—	—
1896–1897	577,018	—	1,069,305	1,646,323	2.406	1.042	—	1.300	.0623	.0164	—	.0221	—	—	—	—
1897–1898	632,963	—	1,431,754	2,064,717	2.427	1.104	—	1.325	.0644	.0160	—	.0208	—	—	—	—
1898–1899	661,773	50,019	2,071,252	3,783,044	2.317	1.402	22.370	1.576	.0584	.0172	.0782	.0201	—	—	—	—
1899–1900	806,316	105,896	2,743,387	3,655,599	2.067	1.436	21.256	1.585	.0609	.0171	.0884	.0209	—	—	—	—
1900–1901	899,204	141,764	3,334,228	4,375,196	2.075	1.514	20.522	1.656	.0610	.0164	.0868	.0199	—	—	—	—
1901–1902	797,380	220,526	3,279,209	4,297,115	2.464	1.504	19.277	1.708	.0605	.0167	.0855	.0203	515,822	.206	.0025	—
1902–1903	834,792	278,727	3,778,192	4,891,711	2.483	1.442	18.437	1.646	.0616	.0168	.0808	.0203	604,881	.205	.0025	—
1903–1904	878,016	270,693	4,337,548	5,486,257	2.544	1.503	18.692	1.691	.0622	.0168	.0815	.0199	626,442	.194	.0023	—
1904–1905	1,093,764	207,048	5,212,194	6,513,006	3.039	1.763	18.156	1.958	.0556	.0168	.0757	.0196	602,375	.182	.0018	—
1905–1906	1,336,886	410,133	6,234,240	7,981,259	2.782	1.599	16.862	1.812	.0530	.0170	.0758	.0201	802,610	.183	.0020	—
1906–1907	2,510,872	494,879	9,546,380	12,552,131	2.846	1.422	19.142	1.647	.0406	.0148	.0776	.0176	1,631,873	.215	.0023	167,347
1907–1908	4,960,059	647,180	19,478,340	25,085,579	2.582	1.191	21.254	1.370	.0323	.0152	.0795	.0174	4,095,863	.224	.0029	835,547
1908–1909	5,992,950	623,643	23,805,430	30,422,023	2.640	1.122	21.999	1.293	.0314	.0146	.0799	.0166	5,147,562	.219	.0028	1,389,494
1909–1910	6,712,423	652,812	24,158,469	31,523,704	2.874	1.135	24.003	1.333	.0331	.0142	.0883	.0165	5,276,263	.223	.0028	1,571,029
1910–1911	7,660,772	676,827	26,641,096	34,978,695	2.970	1.165	24.356	1.373	.0327	.0141	.0888	.0164	5,779,619	.227	.0027	1,903,947
1911–1912	8,690,575	644,908	29,634,901	38,970,384	3.091	1.118	24.205	1.328	.0334	.0142	.0877	.0166	6,603,798	.225	.0028	2,099,298
1912–1913	9,913,327	604,480	35,236,891	45,754,701	* 1.495	—	23.848	1.512	* .0181	—	.0868	.0183	3,450,062	—	—	2,140,838
1913–1914	11,193,565	561,764	41,277,387	53,032,716	3.375	1.251	23.068	1.459	.0357	.0151	.0860	.0174	—	—	—	2,240,842

N.B.—In computing the average terminal charges, the tonnage of goods of express consignment and the tonnage of the same hauled one mile are left out of count.
Figures marked with the asterisk (*) denote the aggregate sum of ordinary and carload consignment earnings.
In computing 'Average per ton per mile for 1912–13' terminal charges are taken into account except in the case of express consignment.
Terminal charges were discontinued on Oct. 1st, 1912.

4. Motive Power and Rolling Stock.

Year	Motive Power and Rolling and Floating Stock																				
	Locomotives							Passenger Carriages							Goods Wagons						
	Tank	Tender	Abt system	Total	No. of locos per 10 open miles	Aggregate weight	Average weight per loco	Bogie	4-wheels	Total	No. of cars per 10 open miles	No. of seats	Average No. of seats per car	Average No. of pass. per seat	No. of seats per open mile	Covered	Open	Others	Total	No. of vehicles per open mile	Aggregate loading capacity	Average loading capacity per vehicle	Average loading capacity per open mile
						ton	*ton*														*ton*	*ton*	*ton*
1886-1887	39	18	—	57	2.7	—	—	0	275	284	13.6	—	—	—	—	437	322	—	759	3.6	—	—	—
1887-1888	46	18	—	64	2.6	—	—	9	298	307	12.6	—	—	—	—	485	468	—	953	3.9	—	—	—
1888-1889	60	18	—	78	1.8	—	—	13	385	398	8.9	—	—	—	—	552	484	—	1,036	2.3	—	—	—
1889-1890	63	34	—	97	1.8	—	—	69	455	524	9.5	—	—	—	—	674	525	—	1,199	2.2	—	—	—
1890-1891	81	36	—	117	2.1	—	—	69	465	534	9·7	—	—	—	—	742	529	—	1,271	2.3	—	—	—
1891-1892	81	42	—	123	2.2	—	—	75	539	614	11.2	—	—	—	—	902	776	—	1,678	3.1	—	—	—
1892-1893	87	42	4	133	2.4	—	—	75	562	637	11.6	—	—	—	—	960	786	—	1,746	3.2	—	—	—
1893-1894	90	48	4	142	2.5	—	—	79	575	654	11.7	—	—	—	—	990	854	—	1,844	3.3	—	—	—
1894-1895	99	64	4	167	2.9	—	—	79	606	685	11.8	—	—	—	—	1,099	1,004	2	2,105	3.6	—	—	—
1895-1896	97	68	6	171	2.9	—	—	87	625	712	12.0	—	—	—	—	1,224	1,002	2	2,228	3.8	—	—	—
1896-1897	99	78	6	183	2.9	—	—	87	716	803	12.7	—	—	—	—	1,265	1,054	2	2,321	3.7	—	—	—
1897-1898	99	153	6	258	3.9	—	—	98	780	878	13.3	32,921	37	.39	50	1,459	1,416	2	2,877	4.4	19,754	6.9	30
1898-1899	117	183	10	310	4.3	—	—	110	864	974	13.6	36,146	37	.37	50	1,638	1,547	2	3,187	4.4	21,231	6.7	30
1899-1900	141	183	10	334	4.5	—	—	119	886	1,005	13.4	37,498	37	.34	50	1,803	1,797	2	3,602	4.8	24,477	6.8	33
1900-1901	139	224	10	373	4.5	—	—	179	896	1,075	13.1	41,219	38	.34	50	2,237	1,847	2	4,086	5.0	27,483	6.7	33
1901-1902	139	242	10	391	4.3	—	—	205	887	1,092	12.1	41,456	38	.33	46	2,508	2,315	2	4,825	5.3	32,843	6.8	36
1902-1903	165	254	12	431	4.1	—	—	289	1,007	1,296	12.2	50,417	39	.30	47	2,825	2,465	2	5,292	5.0	35,995	6.8	34
1903-1904	200	272	12	481	4.2	—	—	297	1,137	1,434	12.5	55,213	39	.29	48	3,126	2,665	2	5,793	5.1	38,295	6.6	33
1904-1905	175	280	12	467	3.9	—	—	297	1,201	1,498	12.4	60,420	40	.33	50	3,150	2,734	2	5,886	4.9	43,086	7.3	36
1905-1906	293	294	12	599	4.0	—	—	342	1,270	1,612	10.7	64,408	30	.35	43	5,240	3,149	9	8,398	5.6	55,893	6.7	37
1906-1907	672	662	14	1,348	4.4	—	—	724	2,660	3,384	10.9	129,745	39	.29	42	10,065	10,087	13	20,165	6.5	142,463	7.1	46
1907-1908	1,039	871	14	1,924	4.3	92,354.52	48.0	961	4,028	4,989	11.2	192,229	39	.27	43	14,120	18,094	28	32,242	7.3	230,894	7.2	52
1908-1909	1,068	941	20	2,029	4.5	99,029.49	48.8	1,067	4,201	5,268	11.6	201,830	38	.28	44	14,330	18,210	28	32,568	7.2	235,732	7.2	52
1909-1910	1,175	974	25	2,174	4.7	105,613.59	48.6	1,157	4,276	5,433	11.7	208,606	38	.29	45	14,528	19,109	28	33,665	7.3	246,682	7.3	53
1910-1911	1,220	186	25	2,231	4.6	109,143.16	48.9	1,363	4,301	5,664	11.6	221,170	39	.29	45	15,277	19,431	42	34,750	7.1	258,270	7.4	53
1911-1912	1,234	1,061	10	2,305	4.6	115,872.29	50.3	1,604	4,289	5,893	11.7	236,273	40	.29	47	16,568	21,342	42	37,952	7.5	292,498	7.7	58
1912-1913	1,230	1,139	12	2,381	4.6	122,829.25	51.6	1,863	4,285	6,148	11.8	250,622	41	.27	48	18,390	22,088	49	40,527	7.8	332,318	8.2	64
1913-1914	1,248	1,240	12	2,500	4.6	132,333.65	52.9	2,208	4,245	6,453	11.8	269,851	42	.25	49	19,670	22,979	56	42,705	7.8	365,852	8.6	67

N.B.—The table includes the vehicles used in construction service.
Under the columns of "Wagons, etc." tank-cars, gas holders, snow-ploughs and tender-cars are included.

Year	Shipping				Transportation							
	No. of ships	Gross tonnage	Chartered ships		No. of engine houses	do. per 100 open miles	Locomotive mileage	Vehicle mileage	Coal consumed for operation	Oil consumed for operation	Coal per 100 loco miles	Oil per 100 loco miles
			No.	Gross tonnage								
		ton		*ton*			*mile*	*mile*	*kin*	*koku*	*kin*	*koku*
1886–1887	—	—	—	—	11	5.3	—	—	—	—	—	—
1887–1888	—	—	—	—	11	4.5	—	—	—	—	—	—
1888–1889	—	—	—	—	18	4.0	—	—	—	—	—	—
1889–1890	—	—	—	—	19	3.5	—	—	—	—	—	—
1890–1891	—	—	—	—	18	3.3	—	—	—	—	—	—
1891–1892	—	—	—	—	18	3.3	—	—	—	—	—	—
1892–1893	—	—	—	—	20	3.6	3,958,059	—	88,541,429	1,334	2,237	.034
1893–1894	—	—	—	—	20	3.6	4,126,128	—	97,356,776	1,340	2,360	.032
1894–1895	—	—	—	—	20	3.4	4,926,585	—	125,578,065	1,928	2,549	.039
1895–1896	—	—	—	—	19	3.2	5,415,055	—	151,759,419	2,292	2,803	.042
1896–1897	—	—	—	—	21	3.3	5,660,456	—	164,091,750	2,624	2,899	.046
1897–1898	—	—	—	—	21	3.2	6,285,771	79,889,329	194,729,780	3,181	3,098	.051
1898–1899	—	—	—	—	23	3.2	7,493,192	93,498,341	245,824,943	3,835	3,281	.051
1899–1900	—	—	—	—	26	3.5	8,349,263	105,572,242	269,776,613	3,868	3,231	.046
1900–1901	—	—	—	—	26	3.2	9,227,240	119,165,971	281,196,666	3,887	3,047	.042
1901–1902	—	—	—	—	29	3.2	9,267,367	121,837,008	293,216,145	2,844	3,164	.031
1902–1903	—	—	—	—	33	3.1	9,741,760	137,277,889	313,752,516	3,908	3,221	.040
1903–1904	—	—	—	—	36	3.1	11,255,667	155,846,889	363,678,931	4,398	3,231	.039
1904–1905	—	—	—	—	37	3.1	10,680,391	153,236,264	350,293,440	4,560	3,280	.043
1905–1906	—	—	—	—	44	2.9	12,499,167	181,370,232	456,919,680	5,867	3,656	.047
1906–1907	12	4,407,10	—	—	76	2.5	21,929,332	315,239,654	847,669,200	9,807	3,865	.045
1907–1908	22	9,975,85	3	1,515,29	107	2.4	43,901,036	647,183,493	1,686,627,600	17,861	3,842	.041
1908–1909	24	12,794,85	4	3,458,67	119	2.6	50,569,162	810,099,190	1,934,705,161	18,029	3,826	.036
1909–1910	27	16,128,06	5	6,711,01	120	2.6	50,234,318	828,447,355	1,971,297,711	15,334	3,924	.031
1910–1911	28	16,356,32	4	6,714,18	117	2.4	52,949,150	894,413,239	2,030,919,436	12,312	3,836	.023
1911–1912	28	19,571,30	5	9,939,94	119	2.4	57,972,193	964,921,502	2,284,521,270	13,995	3,941	.024
1912–1913	29	19,350,76	4	4,233,39	116	2.2	64,753,040	1,083,665,560	2,647,477,065	15,136	4,089	.023
1913–1914	35	19,640,05	4	4,233,39	116	2.1	68,744,136	1,212,827,176	2,910,164,152	16,139	4,233	.023

N.B.—Coal consumed for operation includes petroleum dregs converted at 1 *sho*—5.4 *kin* of coal.

Year	Finance											
	Traffic receipts				Working expenses							
	Passenger traffic	Goods traffic	Miscellaneous	Total	General	Maintenance	Transportation	Maintenance of rolling stock	Traffic	Electric	Hotel	Shipping
	yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
1886–1887	980,199	269,915	51,004	1,301,118	75,515	168,333	247,374	—	131,766	—	—	—
1887–1888	1,320,320	320,901	57,652	1,698,873	67,224	212,509	246,341	—	151,050	—	—	—
1888–1889	1,785,524	467,297	60,990	2,313,811	78,226	318,250	358,693	—	212,416	—	—	—
1889–1890	3,033,706	677,185	60,739	3,771,630	212,879	627,833	520,247	—	302,458	—	—	—
1890–1891	3,305,442	767,967	140,395	4,213,804	138,986	686,657	822,410	—	353,220	—	—	—
1891–1892	3,179,873	824,056	106,212	4,110,141	169,239	1,013,591	866,687	—	377,383	—	—	—
1892–1893	3,487,133	1,019,262	74,238	4,580,633	146,229	839,796	800,520	—	379,654	—	—	—
1893–1894	3,977,086	1,306,397	100,972	5,384,455	129,915	640,494	775,386	—	396,580	—	—	—
1894–1895	4,295,838	1,430,530	93,045	5,819,413	103,139	519,838	1,058,313	—	500,406	—	—	—
1895–1896	5,952,583	1,921,354	130,296	8,004,233	96,216	841,122	1,355,392	—	658,831	—	—	—
1896–1897	6,448,602	1,681,294	143,756	8,273,652	108,919	1,197,421	1,634,209	—	875,114	—	—	—
1897–1898	7,472,343	2,144,540	110,607	9,727,490	142,045	1,279,779	2,207,190	—	1,157,035	—	—	—
1898–1899	8,182,411	2,762,265	141,843	11,086,519	169,697	1,554,999	3,075,958	—	1,437,609	—	—	—
1899–1900	9,765,904	3,600,679	196,821	13,563,404	178,213	1,770,953	2,912,762	—	1,529,047	—	—	—
1900–1901	11,046,359	4,359,096	244,446	15,649,901	187,697	1,811,208	3,080,908	—	1,726,404	—	—	—
1901–1902	11,115,385	4,902,723	316,202	16,334,310	198,332	2,111,366	3,584,969	—	2,043,220	—	—	—
1902–1903	11,959,117	5,489,581	279,704	17,728,402	216,210	2,231,507	3,665,119	—	2,267,864	—	—	—
1903–1904	13,043,551	5,973,275	344,916	19,361,742	207,450	2,407,974	3,893,450	—	2,526,554	—	—	—
1904–1905	12,587,168	7,331,300	449,299	20,367,767	213,795	2,070,199	3,706,569	—	2,448,625	—	—	—
1905–1906	14,535,884	8,866,874	653,382	24,056,140	352,484	2,796,723	5,005,791	—	2,974,157	—	—	—
1906–1907	20,720,870	13,944,931	812,516	35,478,317	490,024	4,055,205	8,727,616	—	4,974,756	—	—	—
1907–1908	38,394,184	30,500,896	880,081	69,775,161	1,016,292	8,194,209	15,893,394	—	10,648,048	—	—	—
1908–1909	42,922,705	35,835,101	1,063,777	79,821,583	1,204,659	7,781,230	20,334,138	—	11,366,905	982,167	—	1,190,538
1909–1910	43,511,990	37,522,659	1,201,787	82,236,436	1,089,559	8,472,835	19,982,448	—	10,200,066	1,080,080	—	1,236,001
1910–1911	46,483,237	41,508,438	1,344,917	89,336,592	1,416,486	9,565,693	18,157,589	—	11,293,359	1,403,922	31,201	1,381,122
1911–1912	52,339,348	46,329,795	1,510,675	100,179,818	1,180,459	10,156,710	18,530,243	—	12,234,622	1,739,418	33,021	1,518,702
1912–1913	55,764,695	50,145,597	2,115,346	108,025,638	1,456,400	11,352,504	13,404,770	7,644,435	14,102,347	—	33,720	1,617,894
1913–1914	57,296,280	53,737,253	2,443,522	113,477,055	1,360,415	12,624,686	14,892,049	7,663,981	14,979,459	20,000	68,740	2,379,085

6. Finance.—*Continued.*

Year	Finance										
	Working expenses			Profit	Traffic receipts per day per mile	Expenses per day per mile	Profit per day per mile	Percentage of working expenses to receipts	Traffic receipts per train mile	Working expenses per train mile	Profit per train mile
	Rent of private railways	Subsidies to Relief Association	Total								
	yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*%*	*yen*	*yen*	*yen*
1886–1887... ...	—	—	622,988	678,130	18.28	8.75	9.53	.48	—	—	—
1887–1888... ...	—	—	677,124	1,021,749	19.69	7.85	11.84	.40	—	—	—
1888–1889... ...	—	—	967,585	1,346,226	18.91	7.91	11.00	.42	—	—	—
1889–1890... ...	—	—	1,663,417	2,108,213	19.35	8.53	10.82	.44	—	—	—
1890–1891... ...	—	—	2,001,273	2,212,531	20.67	9.96	11.01	.47	1.44	.69	.75
1891–1892	—	—	2,426,900	1,683,241	20.40	12.04	8.36	.59	1.24	.73	.51
1892–1893... ...	—	—	2,166,199	2,414,434	22.79	10.78	12.01	.47	1.30	.61	.69
1893–1894... ...	—	—	1,942,375	3,442,080	26.46	9.54	16.92	.36	1.44	.52	.92
1894–1895... ...	—	—	2,181,696	3,637,717	28.20	10.57	17.63	.37	1.39	.52	.87
1895–1896... ...	—	—	2,951,561	5,052,672	37.29	13.75	23.54	.37	1.85	.68	1.17
1896–1897... ...	—	—	3,815,663	4,457,989	36.52	16.84	19.68	.46	1.72	.79	.93
1897–1898... ...	—	—	4,786,049	4,941,441	41.15	20.24	20.91	.49	1.82	.89	.93
1898–1899... ...	—	—	6,238,263	4,848,256	43.91	24.71	19.28	.56	1.71	.96	.75
1899–1900... ...	—	—	6,390,975	7,172,429	49.69	23.41	26.27	.47	1.90	.90	1.00
1900–1901... ..	—	—	9,806,217	8,843,684	53.50	23.27	30.23	.43	1.99	.86	1.13
1901–1902... ...	—	—	7,937,887	8,396,423	51.21	24.89	26.32	.49	2.05	1.00	1.05
1902–1903... ...	—	—	9,380,700	9,347,702	49.72	23.50	26.22	.47	2.10	.99	1.11
1903–1904... ..	—	—	9,035,428	10,326,314	47.90	22.35	25.55	.47	1.99	.93	1.06
1904–1905... ...	—	—	8,439,188	11,928,579	47.50	19.68	27.82	.41	2.24	.93	1.31
1905–1906... ...	—	—	11,129,155	12,926,985	44.82	20.74	24.08	.46	2.25	1.04	1.21
1906–1907... ...	—	—	18,247,601	17,230,716	45.21	23.25	21.96	.51	1.87	.96	.91
1907–1908... ...	—	—	35,751,943	31,023,218	47.87	24.53	23.34	.51	1.86	.95	.91
1908–1909... ...	—	—	42,859,637	36,961,946	48.46	26.02	22.44	.54	1.84	.99	.85
1909–1910... ...	—	—	42,060,989	40,175,447	49.19	25.16	24.03	.51	1.94	.99	.95
1910–1911... ...	—	—	43,249,372	46,087,220	51.34	24.86	26.48	.48	2.00	.97	1.03
1911–1912... ...	129,604	245,477	45,768,256	54,411,562	55.29	25.26	30.03	.46	2.06	.94	1.12
1912–1913... ...	130,895	270,682	50,013,647	58,011,991	57.69	26.71	30.98	.46	2.00	.93	1.07
1913–1914... ...	267,812	295,019	54,551,246	58,925,809	58.13	27.95	20.19	.48	1.98	.95	1.03

6. Finance.—*Continued.*

Year	Finance							
	Capital	Construction expenses settled	Improvement expenses settled	Additional expenses settled	Cost of nationalised lines (represented by purchase price)	Percentage of traffic receipts to capital	Percentage of working expenses to capital	Percentage of profit to capital
	yen	*yen*	*yen*	*yen*	*yen*	*%*	*%*	*%*
1885–1886... ...	17,885,844	15,058,320	—	—	—	—	—	—
1886–1887... ...	21,134,853	2,394,508	—	—	—	.062	.029	.033
1887–1888... ...	26,284,853	5,167,670	—	—	—	.065	.026	.039
1888–1889... ...	33,391,027	6,184,720	—	—	—	.069	.029	.040
1889–1890... ...	34,447,633	2,986,006	—	—	—	.109	.048	.061
1890–1891... ...	34,973,185	704,620	—	444,330	—	.120	.057	.063
1891–1892	36,610,529	1,186,940	—	312,858	—	.112	.066	.046
1892–1893... ...	37,570,274	861,628	—	347,343	—	.122	.058	.064
1893–1894... ...	39,422,778	66,742	—	638,857	—	.137	.049	.088
1894–1895... ...	42,661,167	3,640,835	—	647,406	—	.136	.051	.085
1895–1896... ...	45,815,967	2,362,396	—	1,027,851	—	.175	.064	.111
1896–1897... ...	51,764,265	4,085,771	1,166,300	470,039	—	.160	.074	.086
1897–1898... ...	67,618,139	9,525,608	4,412,827	443,834	—	.144	.071	.073
1898–1899... ...	79,810,485	7,799,570	3,851,001	509,268	—	.139	.078	.061
1899–1900... ..	91,548,670	9,536,280	2,369,562	413,215	—	.148	.070	.078
1900–1901... ...	111,009,495	14,348,276	4,357,661	745,089	—	.141	.061	.080
1901–1902... ...	127,649,232	12,323,110	2,962,840	701,715	—	.128	.062	.066
1902–1903... ...	144,395,061	14,452,110	3,708,426	689,237	—	.123	.058	.065
1903–1904... ...	161,135,866	13,561,881	2,861,859	536,633	—	.120	.056	.064
1904–1905... ...	169,575,604	7,008,555	1,115,742	443,889	—	.120	.050	.070
1905–1906... ...	177,147,563	4,374,905	543,211	386,858	—	.136	.063	.073
1906–1907... ...	189,966,470	7,171,817	3,894,267	839,237	—	—	—	—
1907–1908... ...	380,347,457	15,769,858	5,866,282	1,784,308	144,101,884	—	—	—
1908–1909... ...	753,886,988	20,809,487	9,205,472	1,848,799	326,965,043	.106	.057	.049
1909–1910... ...	784,963,769	24,900,098	8,838,992	2,542,235	—	.105	.054	.051
1910–1911... ...	823,196,507	19,693,998	16,798,373	1,658,526	—	.109	.053	.056
1911–1912... ...	872,229,998	19,963,484	29,236,813	1,843,102	—	.115	.052	.063
1912–1913... ...	932,671,281	28,233,137	31,017,765	2,060,743	—	.116	.054	.062
1913–1914	973,091,496	18,686,241	22,591,407	2,617,392	—	.116	.056	.060

N.B.—The construction expenses settled include the expenses incurred by the laying of the Hokkaido lines and by the construction of a bridge over the new water course of the river Yodo, while in the returns of 1907 and 1908 the purchase price of private railways are included.

The construction and improvement expenses settled include advances.

7. Stores.

Year	Stores					
	Railway stores purchased			Amount of stores on hand		
	Home purchase	Foreign purchase	Total	Stores in stock	Articles in process of manufacture	Total
	yen	*yen*	*yen*	*yen*	*yen*	*yen*
1894–1895	—	—	—	1,861,184	53,573	1,917,757
1895–1896	—	—	—	1,378,458	18,607	1,397,065
1896–1897	—	—	—	1,547,987	32,044	1,580,031
1897–1898	—	—	—	3,407,528	159,373	3,566,901
1898–1899	3,253,682	4,284,033	7,537,715	2,862,813	84,577	2,947,390
1899–1900	4,831,681	930,827	5,762,508	2,046,533	58,841	2,105,374
1900–1901	7,746,096	3,797,525	11,543,621	2,689,419	64,897	2,754,316
1901–1902	6,099,003	1,767,157	7,866,160	3,295,691	111,747	3,407,438
1902–1903	5,707,637	3,019,069	8,726,706	2,307,073	34,055	2,341,128
1903–1904	7,872,016	1,833,575	9,705,591	2,351,905	24,615	2,376,520
1904–1905	2,601,345	2,262,503	4,863,848	2,840,195	108,156	2,948,351
1905–1906	6,848,012	645,413	7,493,425	3,124,790	250,872	3,375,662
1906–1907	10,524,354	2,124,057	12,648,411	9,600,194	149,312	9,749,506
1907–1908	27,448,795	7,931,489	35,380,284	11,801,087	3,130,474	14,931,561
1908–1909	19,787,600	2,072,597	21,860,197	15,011,672	2,317,739	17,329,411
1909–1910	21,943,949	2,120,015	24,063,964	8,506,649	494,055	9,000,704
1910–1911	28,040,178	6,530,187	34,570,365	6,807,996	573,776	7,381,772
1911–1912	33,745,141	7,327,547	41,072,688	7,457,567	899,122	8,356,689
1912–1913	36,287,754	6,075,619	42,363,373	8,688,526	590,755	9,279,281
1913–1914	30,180,838	2,900,375	33,081,213	7,897,315	481,108	8,378,423

8. Works.

Year	Works.						
	No. of workshops	No. of workmen	No. of day's work	No. of day's work reduced	Wages	Average wages per day per capita	Average No. of working days per year per capita
					yen	*yen*	
1886–1887	2	—	—	—	—	—	—
1887–1888	2	—	—	—	—	—	—
1888–1889	2	—	—	—	—	—	—
1889–1890	2	—	—	—	—	—	—
1890–1891	3	—	—	—	—	—	—
1891–1892	3	—	—	—	—	—	—
1892–1893	3	—	—	—	—	—	—
1893–1894	3	1,302	—	365,466	148,738	.407	280.7
1894–1895	3	1,374	—	423,092	172,928	.409	307.9
1895–1896	3	1,654	—	529,473	202,181	.382	320.1
1896–1897	3	1,894	—	626,391	254,854	.407	330.7
1897–1898	3	2,503	—	834,113	382,171	.458	333.2
1898–1899	3	2,600	—	810,243	407,953	.503	311.6
1899–1900	3	2,706	—	829,341	431,799	.521	306.5
1900–1901	3	2,842	—	906,820	488,324	.539	319.1
1901–1902	3	3,441	—	1,058,678	577,566	.546	307.7
1902–1903	3	3,656	—	1,124,605	630,533	.561	307.6
1903–1904	3	3,529	—	1,105,553	638,163	.577	313.3
1904–1905	3	5,713	—	1,174,948	698,415	.594	316.4
1905–1906	4	4,530	—	1,450,423	811,537	.560	320.2
1906–1907	13	8,023	—	1,934,850	1,167,498	.603	241.2
1907–1908	22	12,930	—	3,747,238	2,420,089	.646	289.8
1908–1909	23	14,039	—	4,159,204	2,726,842	.656	296.3
1909–1910	23	13,322	3,732,804	3,900,864	2,642,855	.678	292.8
1910–1911	23	14,143	4,177,235	4,444,228	2,961,035	.666	314.2
1911–1912	24	15,658	4,670,762	5,149,314	3,383,514	.657	328.9
1912–1913	24	16,638	5,100,365	5,613,286	3,740,769	.733	337.4
1913–1914	17	17,026	4,335,578	5,267,433	3,512,294	.710	309.4

N.B.—'No. of workmen' represents the average number of them as returned at the end of each month during the year.
'No. of day's work' is computed by multiplying No. of workmen at work by working days.
'No. of day's work reduced' represents the results obtained by counting one day's work at 10 hours, a workmen working for 15 hours being counted as 1½ days' work.

9. Electricity.

Year	Electricity								
	No. of stations accepting telegrams	No. of stations accepting public telegrams	No. of communication apparatus			Message traffic			
			Telegraph	Telephone	Block instrument	Service telegrams	Public telegrams	Total	Share in charges on public telegrams
									yen
1891–1892	—	—	—	—	—	650,120	99,774	749,894	6,282
1892–1893	104	34	134	17	36	739,593	122,423	862,016	7,080
1893–1894	106	38	137	16	36	827,027	130,403	957,430	7,158
1894–1895	119	39	152	16	74	1,214,972	138,069	1,353,041	7,910
1895–1896	112	46	156	16	82	1,648,985	174,385	1,823,370	9,018
1896–1897	123	53	171	18	104	3,483,160	368,519	3,851,679	12,363
1897–1898	139	54	197	19	110	2,375,663	377,312	2,752,975	15,816
1898–1899	153	54	224	32	160	2,361,202	412,594	2,773,796	16,985
1899–1900	167	66	244	50	172	2,445,134	394,566	2,839,700	18,696
1900–1901	184	81	271	61	178	2,960,616	418,989	3,379,605	22,008
1901–1902	199	98	297	65	217	5,301,253	500,465	5,801,718	22,369
1902–1903	229	128	329	123	265	5,488,462	547,175	6,035,637	23,655
1903–1904	252	155	367	156	294	6,042,133	709,137	6,751,270	30,020
1904–1905	258	167	393	158	309	5,885,524	743,216	6,628,740	36,445
1905–1906	311	184	466	194	318	7,777,035	990,598	8,767,633	42,596
1906–1907	732	491	1,034	836	872	12,822,494	2,018,308	14,840,802	82,456
1907–1908	1,146	684	1,564	2,040	1,238	23,669,872	4,120,162	27,790,034	154,033
1908–1909	1,188	729	1,489	2,890	1,335	26,473,445	4,140,856	30,614,301	204,706
1909–1910	1,226	784	1,519	3,831	1,652	32,590,138	5,661,677	38,251,815	204,384
1910–1911	1,298	820	1,612	5,349	2,073	34,060,951	5,984,256	40,045,207	216,816
1911–1912	1,353	862	2,065	6,889	2,422	38,116,990	6,310,814	44,427,804	228,335
1912–1913	1,404	891	2,077	8,178	2,798	40,743,276	6,504,994	47,248,270	235,471
1913–1914	1,486	876	2,035	9,439	2,818	41,265,451	6,746,526	48,011,977	248,656

N.B.—Telegraph apparatus comprises recorders, sounders, duplex sounders, block instruments and automatic relays.
The block instrument comprises double line instruments, Tyre's, Webb Thompson's and single line instrument.
In the returns of message traffic in and after 1903–1904, despatched and received messages are counted as one and those transmitted as two.

10. Officials and Employees.

Year	Officials and Employees											
	Higher grade						Lower grade					
	Shinnin and *Chokunin* rank			*Sonin* rank			Clerks of *hannin* rank			Assistant engineers of *hannin* rank		
	No.	Monthly salary	Average salary per capita	No.	Monthly salary	Average salary per capita	No.	Monthly salary	Average salary per capita	No.	Monthly salary	Average salary per capita
		yen	*yen*		*yen*	*yen*		*yen*	*yen*		*yen*	*yen*
1894–1895	2	542	271.00	39	4,040	103.59	717	14,697	20.50	151	4,301	28.48
1895–1896	2	542	271.00	40	4,575	114.38	873	17,414	19.95	147	4,297	29.23
1896–1897	3	792	264.00	62	6,525	105.24	1,001	21,610	21.59	211	5,751	27.26
1897–1898	5	1,417	283.40	63	6,576	104.38	1,154	25,753	22.32	212	6,337	29.89
1898–1899	4	1,167	291.75	63	7,309	116.02	1,175	27,397	23.32	249	8,435	33.88
1899–1900	4	1,167	291.75	71	8,141	114.66	1,286	32,268	25.09	290	10,430	35.97
1900–1901	4	1,167	291.75	103	11,034	107.13	1,461	37,311	25.54	356	12,700	35.67
1901–1902	4	1,167	291.75	104	12,093	116.28	1,505	39,907	26.52	368	13,465	36.59
1902–1903	4	1,167	291.75	113	12,809	113.35	1,522	43,929	28.86	368	14,510	39.43
1903–1904	2	625	312.50	109	13,025	119.50	1,513	46,461	30.71	311	13,135	42.23
1904–1905	3	875	291.67	85	10,832	127.44	1,328	43,950	33.09	265	12,115	45.72
1905–1906	3	875	291.67	120	14,514	120.95	1,550	52,059	33.59	354	15,397	43.49
1906–1907	4	1,166	291.50	135	15,919	117.92	1,682	59,183	35.19	405	17,995	44.43
1907–1908	14	3,834	273.86	324	33,909	104.66	3,995	127,538	31.92	1,291	54,578	42.27
1908–1909	17	4,584	269.65	426	46,133	108.29	4,825	158,835	32.92	2,090	87,585	41.91
1909–1910	18	4,833	268.50	441	48,658	110.34	4,492	154,810	34.46	1,951	84,754	43.44
1910–1911	18	5,942	330.11	453	60,735	134.07	4,344	185,132	42.62	1,972	104,226	52.85
1911–1912	21	6,658	332.90	502	68,654	136.76	4,562	197,652	43.33	2,156	112,874	52.35
1912–1913	21	7,358	350.38	517	73,904	142.95	4,749	209,960	44.21	2,290	121,771	53.18
1913–1914	19	6,591	346.89	431	63,242	146.73	4,526	199,562	44.09	2,175	115,442	53.08

10. Officials and Employees.—*Continued.*

Year	Officials and Employees								
	Employees			Servants of regular employ			Total		
	No.	Monthly salary	Average salary per capita	No.	Monthly wages	Average wages per capita	No.	Monthly salary	Average salary per capita
		yen	*yen*		*yen*	*yen*		*yen*	*yen*
1894–1895	873	8,781	10.06	8,111	70,465	8.69	9,893	102,826	10.39
1895–1896	1,030	9,970	9.68	8,872	70,245	8.59	10,994	113,043	10.31
1896–1897	1,751	18,718	10.69	10,972	106,849	9.74	14,000	160,245	11.45
1897–1898	2,149	25,027	11.65	13,496	150,972	11.19	17,079	216,082	12.65
1898–1899	2,356	28,165	11.95	13,927	160,390	11.52	17,774	232,863	13.10
1899–1900	2,570	33,490	13.03	14,391	172,323	11.97	18,612	257,819	13.85
1900–1901	2,783	37,344	13.42	16,175	201,670	12.47	20,882	301,226	14.43
1901–1902	2,796	39,337	14.07	17,637	227,654	12.91	22,414	333,623	14.88
1902–1903	3,079	45,422	14.75	18,616	243,957	13.10	23,702	361,794	15.26
1903–1904	3,104	47,514	15.31	18,623	251,929	13.53	23,662	372,689	15.75
1904–1905	3,114	46,322	14.88	18,666	248,611	13.32	23,461	362,705	15.46
1905–1906	3,849	58,562	15.21	23,092	308,158	13.40	28,878	449,565	15.57
1906–1907	15,217	310,912	20.43	42,204	543,654	12.88	59,647	948,829	15.91
1907–1908	22,306	413,776	18.55	60,336	835,169	13.84	88,266	1,468,801	16.64
1908–1909	22,106	380,869	17.23	60,404	861,686	14.27	89,868	1,539,692	17.13
1909–1910	22,311	400,373	17.95	60,918	883,728	14.51	90,131	1,577,156	17.50
1910–1911	23,709	465,023	19.61	65,131	956,006	14.68	95,627	1,777,064	18.58
1911–1912	25,806	501,418	19.43	70,371	1,051,351	14.94	103,418	1,938,607	18.75
1912–1913	27,745	542,716	19.56	74,661	1,137,952	15.24	109,983	2,093,661	19.04
1913–1914	28,781	566,523	19.68	76,155	1,157,911	15.20	112,087	2,109,271	18.82

Section

II

Private and Light Railways in Japan Proper and South Manchuria Railway.

SECTION II.

PRIVATE AND LIGHT RAILWAYS IN JAPAN PROPER AND SOUTH MANCHURIA RAILWAY.

GENERAL RESUME.

During the year under review there was not a single case of charter newly granted to private railways or of an old charter invalidated. Nor was there any extension made in the open lines. In consequence the number of private railways, both open and not yet open, and their aggregate mileage remained the same as in the preceding year, being 9 companies representing 252 m. 10 ch. open to traffic and 353 m. 76 ch. under construction. In the list of light railways, however, a certain change has been brought about as a result of either new grants or invalidations of charters. The former covered 91 companies with the total mileage of 1,034 m. 27 ch. and the aggregate capital of 52,080,264 yen, and the latter represented 20 companies with 239 m. 47 ch. and 12,850,000 yen. The mileage of light railways open to traffic at the end of the year extended 324 m. 6 ch., which means an increase during the last twelve months of the total open mileage of light railways from 799 m. 12 ch. to 868 m. 77 ch. The lines under projection came up to 104 m. 10 ch. in total for the private railways, while in the light railways they represent 3,103 m. 68 ch.

The aggregate capital at the end of the year was 28,550,000 yen for the private railways and 56,539,222 yen for the light railways.

The rolling stock owned by the private and light railways open to traffic at the end of the year consisted of 260 locomotives, 916 carriages, 160 electric trams, 16 steam motor cars and 3,285 wagons.

The locomotive mileage was 5,302,220 miles and the coal consumed 140,116,194 tons. The train mileage reached 4,460,910 miles and the passenger car mileage 21,032,941 miles, exclusive of the electric tram mileage and the steam motor car mileage amounting to 9,076,168 miles and 291,261 miles respectively, while the wagon mileage reached 17,831,690 miles.

The passengers carried during the year totalled 39,267,106, the passengers carried one mile 280,838,421, and the earnings derived therefrom 4,678,974 yen. The luggage conveyed totalled 16,709 tons, and the charges for same 119,226 yen. The goods hauled totalled 4,237,637 tons, the weight of goods hauled one mile 56,396,794 tons and the earnings accruing therefrom 1,785,305 yen.

The traffic receipts aggregated 7,135,516 yen and the working expenses 3,808,433 yen, leaving balance of profit to the amount of 3,327,083 yen.

The total number of the officials and employees amounted to 8,831.

(1) PRIVATE RAILWAYS OPEN TO BUSINESS.

Name of Co.	Section	Route mileage	Track mileage	Gauge	Nominal capital	Date of opening
		m. ch.	*m. ch.*	*ft. in.*	*yen*	
Narita	Sakura-Sawara	24.65	52.61	3.6	2,425,000	Jan. 19th, 1897
	Narita-Abiko	20.31				
	Total	45.06				
Chuetsu	Fushiki-Johana	23.06	27.04	3.6	850,000	May 4th, 1897
Nankai	Namba-Wakayama	40.03	82.33	3.6	10,000,000	Oct. 1st, 1897
	Wakayamashi-Junction with Government's line	.55				
	Tengajaya-Tennoji	1.37				
	Total	42.15				
Tobu	Asakusa-Isezaki	70.22	97.15	3.6	7,700,000	Aug. 27th, 1899
	Kameido-Hikifune	2.11				
	Total	72.33				
Hakatawan	Saitozaki-Umi	15.30	23.54	3.6	2,075,000	Jan. 1st, 1904
	Sakado-Shime	1.04				
	Total	16.34				
Yokohama	Higashikanagawa-Hachioji	26.35	37.76	3.6	3,500,000	Sept. 23rd, 1908
	Higashikanagawa-Umikanagawa	.65				
	Total	27.20				
Ashio	Aioi-Ashio	25.56 .65	29.42	3.6	2,000,000	Apr. 15th, 1911
Total		**252.10**	**350.45**	—	**28,550,000**	—

(2) PRIVATE RAILWAYS NOT YET OPENED FOR BUSINESS.

Name of Co.	Section	Mileage	Gauge	Capital	Approved date of establishment
		m. ch.	*ft. in.*	*yen*	
Ashio	Ashio-Motoyama	1.68	3.6	—	Jan. 31st, 1910
Musashi-Denki	Shibuya-Hiranuma	15.16	4.85	3,500,000	Jan. 9th, 1911
	Chofu-Kamata	3.66			
	Himonya-Shinjuku	4.60			
	Total	23.62			
Tojo	Otsuka-Shibukawamachi	76.16	3.6	4,500,000	Nov. 16th, 1912
Total		**101.66**		**8,000,000**	

(3) PRIVATE RAILWAYS PROJECTED UNDER PROVISIONAL CHARTERS.

Name of Co.	Section	Mileage	Gauge	Capital	Approved date of establishment
		m. ch.	*ft. in.*	*yen*	
Musashi-Denki	Hiranuma-Horaicho	2.24	4.8½	600,000	May 16th, 1910

(4) LIGHT RAILWAYS OPEN TO BUSINESS.

Name of Co.	Section	Route mileage	Track mileage	Gauge	Capital	Date of opening
		m. ch.	*m. ch.*	*ft. in.*	*yen*	
Chugoku	Inari-Inariyama	1.40	58.53	2.6	4,300,000	May 1st, 1911
	Okayama-Tsuyama	35.20		3.6		Dec. 21st, 1898
	Okayama-Tadai	13.40	.77			
	Total	50.20				
Iyo	Takahama-Yokogawa	14.04	30.51	2.6	1,200,000	Oct. 28th, 1888
	Tachibana-Morimatsu	2.60		2.6		
	Komachi-Ichibancho	3.31		3.6		
	Matsuyama-Gunchu	6.51		2.6		
	Total	26.66				
Ome	Tachikawa-Hinatawada	13.00	13.71	3.6	750,000	Nov. 19th, 1894
Kawagoe	Kokubunji-Kawagoe	18.36	22.26	3.6	500,000	Dec. 27th, 1894

(4) LIGHT RAILWAYS OPEN TO BUSINESS.—*Continued.*

Name of Co.	Section	Route mileage	Track mileage	Gauge	Capital	Date of opening
		m. ch.	*m. ch.*	*ft. in.*	*yen*	
Tobu	Kuzuu-Koena	9.56	27.12	3.6	1,300,000	March 20th, 1894
	Sano-Sano Junction	.18				
	Ota-Aioi	10.40				
	Total	20.34				
Kotsuke	Takasaki-Shimonita	21.00	22.37	2.6	500,000	May 10th, 1897
Toyokawa	Yoshida-Nagashino	17.30	22.58	3.6	1,100,000	July 15th, 1897
	Funamachi-Funamachi Junction	.31				
	Total	17.61				
Omi	Hikone-Kibukawa	26.01	32.28	3.6	1,100,000	June 11th, 1898
	Takamiya-Taga	1.42				
	Total	27.43				
Bisai	Yatomi-Shinichinomiya	15.46	20.03	3.6	720,000	April 3rd, 1897
Jobu	Kumagaya-Chichibu	21.04	26.12	3.6	1,000,000	Oct. 7th, 1901
Ryugasaki	Ryugasaki-Sanuki	2.64	3.04	2.6	91,000	Aug. 14th, 1900
Kanan	Kashiwabara-Nagano	10.22	13.38	3.6	350,000	May 11th, 1899
Mito	Mito-Ota	12.11	13.67	3.6	230,000	Oct. 21st, 1901
Sunzu-Denki	Mishima-Ohito	10.51	12.32	3.6	600,000	April 1st, 1912
Koya-Tozen	Shiomizaki-Nagano	17.31	25.16	3.6	2,000,000	Nov. 16th, 1907
Kozaka	Kozaka-Odate	14.03	22.46	2.6	1,000,000	May 7th, 1909
	Shigenai-Futatsuya	2.21				
	Total	16.24				
Shimabara	Isahaya-Minatoshinchi	26.20	28.77	3.6	800,000	June 20th, 1911
Chiba (Prefectural management)	Kashiwano-Nodamachi	9.10	45.65	3.6	727,000	May 9th, 1911
	Narita-Tako	14.49		2.0		
	Sanrizuka Freight branch	.26		2.6		
	Tako-Loading place at Kuriyamagawa	.40		2.0		
	Kisarazu-Kururi	14.06		2.6		
	Total	38.51				
Aichi-Denki	Jingumae-Tokoname	18.26	19.60	3.6	2,000,000	Feb. 28th, 1912
Uonuma	Shinraikoji-Ojiya	8.06	8.43	2.6	250,000	Sept. 14th, 1911
Tosan-Denki	Shido-Deharu	7.74	8.49	4.8	1,000,000	Nov. 18th, 1911
Nishio	Nishio-Okazaki	8.25	9.39	2.6	300,000	Oct. 30th, 1911
Tanaka Chobei (owned and worked by)	Suzuko-Ohashi	9.71	10.41	2.6	250,000	Nov. 3rd, 1911
Hatsuse	Hatsuse-Sakurai	3.39	3.58	3.6	250,000	Feb. 10th, 1912
Nagoya Denki	Oshikiri-Higashiichinomiya	11.69	43.66	3.6	5,000,000	March 29th, 1912
	Biwashimabashi-Niitsushima	8.63				
	Iwakura-Inuyama	9.37				
	Total	30.09				
Minato	Katsuda-Nakaminato	5.10	5.58	3.6	250,000	Dec. 25th, 1913
Yoshino	Yoshinoguchi-Yoshino	7.19	8.75	3.6	520,000	Oct. 25th, 1912
Tomo-Keiben	Tomo-Nogami	7.15	7.15	2.6	200,000	Nov. 17th, 1913
Kada-Keiben	Wakayamaguchi-Kada	5.55	5.60	3.6	300,000	June 16th, 1912
Kyoto-Dento	Shinfukui-Katsuyama	17.08	17.08	3.6	7,000,000	Feb. 17th, 1914
Awa-Kyodokisen	Tokushima-Komatsushima	6.71	8.67	3.6	1,000,000	April 20th, 1913
Shimotsui-Keiben	Shimotsui-Chayamachi	13.02	13.02	2.6	500,000	Nov. 11th, 1913
Yokkaichi	Yuyama-Suwa	9.51	10.61	2.6	200,000	June 1st, 1913
Ihara-Kasaoka-Keiben	Kasaoka-Ihara	12.06	13.08	2.6	250,000	Nov. 17th, 1913
Shingu	Katsuura-Shingu	9.51	11.44	3.6	600,000	Dec. 4th, 1912
Echigo	Kashiwazaki-Hakusan	50.10	57.44	3.6	1,500,000	Aug. 25th, 1912
Banshu	Nishiwaki-Takasagoguchi	23.29	28.37	3.6	1,800,000	April 1st, 1913
Yoro	Yoro-Ikeno	15.27	18.00	3.6	1,500,000	July 31st, 1913
Chuetsu	Fushiki-Himi	5.66	6.47	3.6	200,000	April 4th, 1912
Miyazaki-Keiben	Utsumi-Akam	12.37	13.66	3.6	500,000	Oct. 31st, 1913
Matsuzaka-Keiben	Matsuzaka-Oishi	12.46	15.70	2.6	400,000	Aug. 7th, 1913
	Hirao-Okuchi	1.61				
	Total	14.27				
Ube-Keiben	Ube-Ubeshinkawa	74.08	4.13	3.6	150,000	Jan. 9th, 1914
Iwate-Keiben	Hanamaki-Tsuchizawa	7.69	8.44	2.6	1,000,000	Oct. 23rd, 1913
Mikawa	Kariyashin-Ohayaminato	9.00	9.00	3.6	500,000	Feb. 5th, 1914
Tateyama-Keiben	Namekawa-Iochi	8.58	9.57	3.6	320,000	June 25th, 1913
Yabakei	Nakatsu-Hida	8.70	8.70	2.6	650,000	Dec. 26th, 1913
Kagoshima-Denki	Takenohashi-Taniyama	4.00	8.00	4.8½	1,000,000	Dec. 1st, 1912
Okawa	Wakatsu-Nawate	11.50	13.33	3.6	250,000	Dec. 20th, 1912
Senboku-Keiben	Kogota-Ishinomaki	17.33	18.73	2.6	1,000,000	Oct. 28th, 1912
Toso	Fujiedashin-Ote	2.23	3.17	2.6	300,000	Nov. 16th, 1913
Takeoka-Keiben	Shintakeo-Itsukaichi	4.16	4.33	2.6	200,000	Jan. 29th, 1914
Konan	Shinhachiman-Yokaichiguchi	5.32	5.52	3.6	150,000	Dec. 29th, 1913
Unoshima	Unoshima-Yabakei	10.47	10.47	2.6	200,000	March 21st, 1914
Joso	Torite-Shimodate	31.70	37.07	3.6	1,000,000	Nov. 1st, 1913
Miyazaki (prefectural management)	Obe-Aburatsu	3.72	15.60	2.6	—	Aug. 18th, 1913
	Miyazaki-Fukushima	8.68				
	Total	12.60		3.6	859,935	Dec. 15th, 1913
Fujiminobu	Fuji-Omiya	6.32	8.16	3.6	4,000,000	Feb. 20th, 1913
Chuen	Shinfukuroi-Shinyokosuka	6.21	6.21	2.6	100,000	Jan. 12th, 1914
Nagara-Keiben	Nagara-Takatomi	3.14	3.39	3.6	120,000	Dec. 25th, 1913
Kihoku-Keiben	Kitakatamachi-Chusetsu	4.07	4.34	3.6	250,000	March 29th, 1914
Ina-Denki	Ina-Miyata	5.36	5.36	3.6	1,500,000	Dec. 27th, 1913
Choshi-Yuran	Choshi-Inubo	3.46	3.46	3.6	150,000	Dec. 28th, 1913
Tomakomai	Tomakomai-Saruta	25.08	26.65	2.6	500,000	Oct. 1st, 1913
Tatsuno-Denki	Aboshiminato-Hashizaki	8.59	9.60	4.8½	400,000	Aug. 1st, 1913
	Tatsuno-Aboshi branch					
Total		**868.77**	**1,014.54**	**—**	**56,539,222**	**—**

(5) LIGHT RAILWAYS NOT YET OPENED FOR BUSINESS.

Name of Co.	Section	Mileage	Gauge	Capital	Approved date of establishment
		m. ch.	*ft. in.*	*yen*	
Chugoku	Oishi-Ashimori	2.09	3.6	—	April 27th, 1912
Tobu	Inubushi-Tatebayashi	7.00			March 4th, 1912
	Tanuma-Kanuma	23.08	3.6	—	Sept. 30th, 1912
	Total	30.08			
Bisai	Ichinomiya-Kitagata	5.30			
	Oku-Okoshi	1.60	3.6	—	March 18th, 1912
	Tsushima-Tatsuta and branch	4.73			Oct. 20th, 1913
	Total	12.03			
Jobu	Honnokami-Omiya	7.64	3.6	—	
Koyatozan	Nagano-Hashimoto	10.39			×Feb. 16th, 1911
	Hashimoto-Sumida	1.06	3.6	—	× „ „ 1911
	Tsumori-Otsukitashima	.75			Aug. 16th, 1913
	Total	12.40			Aug. 16th, 1913
Chiba (prefectural management)	Yachimata-Sanrizuka	8.46	2.0	—	
	Yokosuga-Handa	9.45			Nov. 1st, 1913
Aichi-Denki	Tokoname-Utsumi	13.25			Dec. 20th, 1912
	Atsuta-Toyo	2.72	3.6	—	Aug. 20th, 1912
	Atsuta-Arimatsu	6.19			Feb. 18th, 1913
	Narumi-Nawa	2.49			Feb. 18th, 1913
	Total	34.50			Feb. 18th, 1913
Tosan-Denki	Nishihama-Deharu	2.22			×Feb. 15th, 1911
	Takamatsugobancho-Tamamocho	.72	4.8½	—	Nov. 1st, 1911
	Shido-Matsuo	9.53			Nov. 1st, 1911
	Total	12.67			
Nishio	Nishio-Yoshida	6.05			
	Nishio-Hirasaka	2.40	2.6	—	Sept. 17th, 1912
	Total	8.45			June 17th, 1913
Hatsuse	Hatsuse-Matsuzaka	59.20	3.6	—	June 7th, 1913
Nagoya-Denki	Arakawa-Kiyosu	1.16	3.6	—	March 27th, 1914
Tomo	Nogami-Fukuyama	.29	2.6	—	Sept. 5th, 1910
Kada-Keiben	Kitajima-Wakayamaguchi	.60	3.6	—	April 5th, 1913
Kyoto-Dento	Katsuyama-Onoguchi	5.44	3.6	—	Oct. 6th, 1910
Ise	Tsu-Yokkaichi	19.66			
	Wakamatsu-Kobe	2.29	3.6	500,000	Oct. 20th, 1910
	Total	22.15			
Chuo	Kawaguchi-Wakatsuki	12.40			
	Wakatsuki-Oshi	23.00	3.6	600,000	Nov. 5th, 1910
	Total	35.40			Sept. 11th, 1913
Shimotsui-Keiben	Chayamachi-Kurashiki	4.00	2.6	—	Nov. 26th, 1913
Tama	Sakai-Koremasa	5.11	3.6	350,000	Nov. 15th, 1910
Yokkaichi	Yokkaichi-vicinity	.51	2.6	—	Nov. 17th, 1910
Hambi	Kamigori-Emi	17.40			
	Tsuyama-Emi	17.69	2.6	1,000,000	Dec. 15th, 1910
	Total	35.29			Oct. 21st, 1912
Echigo	Yoshida-Yahiko	3.32	3.6	—	Aug. 2nd, 1913
Banshu	Yoshida-Takasagoguchi	1.69			
	Kunikane-Miki	13.24	3.6	—	Jan. 25th, 1911
	Awau-Hojo	15.13			
	Total				
Tohi	Yabegawa-Waifu	27.48	3.6	1,000,000	Feb. 25th, 1911
Hokubu	Habu-Kumagaya	9.16	3.6	40,000	Feb. 25th, 1911
Odawara-Denki	Yumoto-Miyagino	5.26	4.8½	1,955,000	March 1st, 1911
Geibi	Hiroshima-Miyoshi	43.07	3.6	3,600,000	March 2nd, 1911
Musashi-Denki	Azabu-ninohashi-Setagaya	6.44	3.6	350,000	March 11th, 1911
Banto	Hachioji-Omama	64.37	3.6	3,000,000	March 13th, 1911
Uwajima	Uwajima-Chikanaga	10.55	2.6	400,000	March 27th, 1911
Yoro	Kuwana-Yoro				
	Ikeno-Haginaga	22.29	3.6	—	March 28th, 1911
	Branch				
Shinano	Matsumoto-Omachi	21.34	3.6	600,000	April 5th, 1911
Tsukuba	Tsuchiura-Iwase	24.60	3.6	900,000	April 20th, 1911
Kurate-Keiben	Kiyase-Kazuki	2.31	3.6	150,000	April 27th, 1911
Matsuzaka-Keiben	Kokatano-Oishi	1.00	2.6	—	June 6th, 1911
Miyajimatozan	Nakanishi.Niomon	.78	3.6	250,000	June 6th, 1911
Tawaramoto	Tawaramoto-Oji	6.27	3.6	200,000	June 7th, 1911
Aichi	Chigusa-Inuyama	15.47	3.6	800,000	Jan. 12th, 1911
Sasayama-Keiben	Sasayama-Sasayamamachi	2.36	3.6	80,000	June 12th, 1911
Himeji	Himeji-Kamioka	10.00	2.6	300,000	June 15th, 1911
Fuji-Minobu	Omiya-Shibakawa	4.12			
	Shibakawa-Kofu	45.12	3.6	—	June 23rd, 1911
	Total	49.24			
Moura	Yamanaka-Moura	4.34	3.6	400,000	June 26th, 1911
Onsenkaiyu	Beppu-Onshiku	9.10	3.6	1,500,000	June 26th, 1911
Ehime	Gunchu-Yahatahama	37.24			
	Yahatahama-Kisuki	1.56	3.6	2,000,000	June 28th, 1911
	Total	39.00			
Iwate-Keiben	Tsuchizawa-Kamigo	33.48	2.6	—	July 5th, 1911
Mikawa	Wadachi-Kariyashin	2.47			July 18th, 1911
	Wadachi-Agemo	9.02	3.6	—	Oct. 21st, 1912
	Ohama-Kamagori	19.24			July 1st, 1913
	Total	30.73			
Wakayama-Suiryoku-denki	Hashimoto-Koya	21.21	4.8½	2,500,000	July 18th, 1911

(5) LIGHT RAILWAYS NOT YET OPENED FOR BUSINESS.—*Continued.*

Name of Co.	Section	Mileage	Gauge	Capital	Approved date of establishment
		m. ch.	*ft.in.*	*yen*	
Hijiu	Takeë-Ajin	11.44	2.6	300,000	July 18th, 1911
Yabakei	Hida-Tsutami	6.43	2.6	—	July 28th, 1911
Choshu	Beppu-Shomyoshi	47.62	3.6	1,500,000	Aug. 4th, 1911
	Shomyoshi-Misumi	2.05			Aug. 16th, 1913
	Total	49.67			
Okawa	Shimewakaura-Shimotsu	.55	3.6	—	×Aug. 17th, 1911
	Nawate-Kurume	14.10			
	Okawa-Omuta				May 13th, 1913
	Total	14.65			
Ichihata-Keiben	Imaichi-Kozakai	13.00	3.6	400,000	Aug. 21st, 1911
Ryobi-Keiben	Fukuyama-Takaya	8.73	2.6	1,000,000	Aug. 21st, 1911
	Kawaminami-Fuchu	9.38			
	Total	18.31			
Sun-en	Yaizu-Nakaizumi	41.64	2.6	1,200,000	Aug. 22nd, 1911
Senboku-Keiben	Tome-Tsuidate	21.20	2.6	—	Aug. 23rd, 1911
Toso	Fujiedashin-Kawasaki	10.09	2.6	—	Aug. 29th, 1911
Tamashima-Keiben	Tamashima-Tamashimacho	1.51	3.6	90,000	Sept. 9th, 1911
Kinfuku	Kanazawa-Fukuno	21.00	3.6	800,000	
Kokura	Adachi-Kumada	30.26	3.6	3,500,000	×Sept. 9th, 1911
	Adachi.Haramachi				
	Kogane-Soeda	8.00			Oct. 13th, 1911
	Total	38.26			
Takeoka-Keiben	Gobuichi-Okamoto	1.64	2.6	—	Sept. 28th, 1911
	Takeu-Asahi	6.65			March 16th, 1913
	Total	8.49			
Nangu-Keiben	Fukue-Nakana	9.70	2.6	180,000	Oct. 7th, 1911
Senju	Senju-Kawaguchi	6.40	3.6	300,000	Oct. 18th, 1911
Musashino	Ikebukuro-Hanno	2.740	3.6	1,000,000	Oct. 18th, 1911
Seibu-Keiben	Hachioji-Omiya	27.00	3.6	1,500,000	Oct. 30th, 1911
Nogami-Keibendenki	Hikata-Higashinogami	5.45	3.6	200,000	Oct. 10th, 1911
Satte	Kuki-Toyoöka	6.12	3.6	200,000	Dec. 1st, 1911
Shinsan	Shinkawa-Asuke	35.40	3.6	1,300,000	×Dec. 5th, 1911
Awa-Denki	Tokushima-Kamo	11.03	3.6	400,000	Dec. 28th, 1911
	Ojin-Muya				
	Horie-Itanishi	3.66			Aug. 16th, 1913
	Total	14.69			
Tenri-Keiben	Tomigo-Tambaichi	5.49	2.6	250,000	Jan. 4th, 1912
Mifune	Harutake-Takikawa	7.46	3.6	500,000	Jan. 10th, 1912
	Takikawa-Hamamachi	21.00			May 31th, 1913
	Total	28.46			
Hokusei	Kuwana-Ageki	13.08	2.6	250,000	Jan. 16th, 1912
Anno	Shinmachi-Hayashi	9.05	2.6	230,000	Feb. 3rd, 1912
	Anto-Takamiya	6.20			
	Total	15.25			
Miyazaki (prefectural management)	Fukushimamachi-Tsuma	7.77	3.6	—	Feb. 10th, 1912
Mino-Denki	Gifu-Kasamatsu	3.19	3.6	320,000	Feb. 23rd, 1912
Arita	Yuasa-Tokuta	6.00	3.6	250,000	March 9th, 1912
Hamamatsu-Keiben	Itaya-Kanasashi	10.05	2.6	350,000	March 5th, 1912
	Kanasashi-Kiga	1.55			
	Kanasashi-Okuyama	5.00			
	Iinoya-Itaira	2.65			
	Total	19.45			
Matsushima-Keiben	Shiogama-Matsushima	8.00	2.6	200,000	March 18th, 1912
Toba	Toba-Ugata	16.40	2.6	300,000	March 20th, 1912
Chuno-Keiben	Gifu-Kanayama	43.45	2.6	1,500,000	March 25th, 1912
	Ota Yoshida	5.50			
	Total	49.15			
Kamo	Saijo-Aga	19.15	3.6	1,300,000	March 28th, 1912
	Aga-Washo	1.62			April 14th, 1913
	Total	20.77			
Nagara-Keiben	Okoshi-vicinity	.29	3.6	—	March 30th, 1912
Nansatsu	Ijuin-Makurazaki	30.37	3.6	1,000,000	April 12th, 1912
Keisei-Keiben	Osaki-Chofu	11.00	3.6	500,000	April 13th, 1912
Geibi-Keiben	Mihara-Takehara	16.16	2.6	1,050,000	April 17th, 1912
	Takehara-Aga	27.16			June 22nd. 1912
	Total	43.32			
Kyushu-Dento	Hamasaki-Tamashima	1.78	3.6	34,840	April 27th, 1912
Usasangu-Keiben	Usa-Takata	5.10	3.6	200,000	May 1st, 1912
Shizuoka-Keiben	Osato-Okabe	7.19	2.6	250,000	June 12th, 1912
	Osato-Torimi	1.07			March 5th, 1914
	Total	8.26			
Ina-Densha	Miyata-Iida	24.39	3.6	—	×June 12th, 1912
Sangu	Toyohashi-Fukue	20.00	2.6	600,000	June 20th, 1912
Kirishima-Keiben	Nishikokubu-Miyakonojo	27.20	3.6	1,090,000	July 17th, 1912
Takamatsu-Denki	Nagao-Matsubara	11.33	3.6	456,000	July 25th, 1912
Kubiki	Naoetsu-Shimohokura	10.40	2.6	220,000	Aug. 1th, 1912
	Shimohokura-Yasuzuka	.78			Jan. 9th, 1914
	Total	11.38			
Kusatsu-Keiben	Karuizawa-Kusatsu	21.00	3.6	500,000	May 31st, 1913
Kyoto-Yuran	Maruyama-Awadaguchi	28.46			

(5) LIGHT RAILWAYS NOT YET OPENED FOR BUSINESS.—*Continued.*

Name of Co.	Section	Mileage	Gauge	Capital	Approved date establishment
		m. ch.	*ft. in.*	*yen*	
Mayasan-Cable ...	Harada-Maya	13.08	2.6	250,000	Jan. 16th, 1912
Akita...	Odate-Hanawa...	9.05			
Ashiya	Ashiya-Ongagawa	6.20	2.6	230,000	Feb. 3rd, 1912
Tonami	Fukumachi-Aoshima	15.25			
Chobo-Keiben	Tsubaki-Ogori	7.77	3.6	—	Feb. 10th, 1912
Akashi	Miki-Akashi	3.19	3.6	320,000	Feb. 23rd, 1912
Nanki-Keiben	Kata-Shimokuwabara	23.36	2.6	1,000,000	Dec. 12th, 1912
Hansen-Keiben ...	Ichinoseki-Kisenuma	38.00			
	Serizawa-Senmaya	6.00	2.6	1,500,000	Sept. 25th, 1912
	Total	44.00			
Anan...	Komatsushimaura-Iwawaki	6.40	3.6	350,000	Oct. 22nd, 1912
In-yo-Denki	Sosha-Hirakawa	25.64			
	Matsuyama-Takahashi	1.72	3.6	1,200,000	Oct. 22nd, 1912
	Total	27.56			
Seibi	Tsuyama-Katsuyama	23.15	3.6	1,000,000	Oct. 23rd, 1912
Awaji	Sunomoto-Fukura	14.19	3.6	450,000	April 17th, 1912
Chukan	Raikoji-Oshima	6.20			Oct. 25th, 1912
	Higoe-Yoita	6.68	3.6	450,000	Oct. 25th, 1912
	Total	13.08			June 14th, 1913
Hokuen-Keiben ...	Kakegawa-Tatsukawa	21.40	3.6	1,200,000	Oct. 26th, 1912
Iwata	Nakaizumi-Futamata	12.50	3.6	700,000	Oct. 26th, 1912
Hitoyoshi-Keiben ...	Hitoyoshi-Yunosaki	17.00	3.6	550,000	Oct. 28th, 1912
Buso	Abiko-Iwatsuki	21.24	3.6	1,000,000	Oct. 28th, 1912
Takai-Keiben	Takaya-Ihara	2.40	2.6	75,000	Oct. 29th, 1912
Onsen	Kawatana-Yunotani	1.20	3.6	20,000	Oct. 29th, 1912
Bosan-Keiben	Bofu-Yuno	23.00	3.6	1,500,000	Nov. 7th, 1912
Kinkazan-Tozan ...	Kajikawa-Top of Mt. Kinka ...	.72	2.6	120,000	Nov. 11th, 1912
Oyu	Oita-Yunohira	20.34	3.6	400,000	Nov. 15th, 1912
Shigaraki	Naiki-Nagano	10.64	2.6	300,000	Nov. 15th, 1912
Ishite-Keiben	Dogo-Matsuyama	3.08	2.6	100,000	Nov. 15th, 1912
Biyo-Denki	Kiyosu-Oki	9.40			
	Inazawaeki-Inazawamachi	4.56	3.6	850,000	Nov. 26th, 1912
	Inazawamachi-Shimosofue	15.71			
Seto-Keiben	Seidaiji-Sasaoka	14.26			
	Narahara-Tsuitachiichi	1.61	2.6	500,000	Nov. 28th, 1912
	Seto-Setoeki	.27			
	Total	16.34			
Ibi-Keiben	Kamimakuwa-Ibi	7.20	3.6	450,000	Nov. 28th, 1912
Funaki-Keiben ...	Funaki-Ube	4.28	3.6	150,000	Nov. 30th, 1912
Tojo	Ikebukuro-Shimoitabashi	1.20	3.6	140,000	Nov. 30th, 1912
Aibi	Inuyama-Fushimi	9.60	3.6	350,000	Dec. 6th, 1912
Higo	Matsuhashi-Hamacho	23.40	3.6	1,000,000	Dec. 6th, 1912
Seto-Denki	Seto-Kamishinano	2.50	2.6	75,000	Dec. 18th, 1912
Tono	Tajimi-Mitake	10.40	3.6	450,000	Dec. 18th, 1912
Nohi-Denki	Nakatsugawa-Mori	31.40	3.6	1,500,000	Dec. 20th, 1912
Shunan	Ube-Ogori	18.00	3.6	540,000	Dec. 20th, 1912
Saku	Komoro-Nakakome	8.31	2.6	250,000	Jan. 4th, 1913
Saitama	Kuki-Konosu	12.00	3.6	450,000	Jan. 18th, 1913
Settan	Kameoka-Yoshikawa	14.25	3.6	800,000	Jan. 10th, 1913
Matsushiro-Keiben...	Yashiro-Matsushiro	4.70	2.6	150,000	Feb. 7th, 1913
Tamban	Tanikawa-Nishiwaki	8.00	3.6	300,000	Feb. 17th, 1913
Nikkozan-Denki ...	Ohira-Yumoto	7.73	3.6	300,000	Feb. 20th, 1913
Warashina-Keiben ...	Hataori-Kiyosawa	8.00	2.6	250,000	Feb. 27th, 1913
Toyama-Keiben ...	Toyama Sasatsu	11.09	3.6	500,000	March 6th, 1913
Shisei-Keiben	Toba-Shimatsu	46.00			
	Kazusa-Hamashima...	6.40	3.6	3,000,000	March 7th, 1913
	Total	52.40			
Sangu	Tennoji-Miwa	26.12	4.8½	1,800,000	March 8th, 1913
Okinawa (prefectural management) ...	Nawa-Yonahara	6.45			
	Kuniba-Itomitsu	7.53	2.6	530,000	Feb. 20th, 1913
	Total	14.18			
Ako	Shioya-Kamigori	11.30			
	Sakoshi-Sakoshiko	1.10	3.6	250,000	March 28th, 1913
	Total	12.40			
Katagami...	Ibe-Mitsuishi	9.00	2.6	300,000	March 29th, 1913
Santo-Keiben	Wakayama-Sandoō	6 00	3.6	200,000	April 1st, 1913
Nakahara-Keiben ...	Tatebayashi-Koizumi	6.10	2.6	150,000	April 5th, 1913
Hizen-Denki	Shioda-Takeo	6.73	3.6	1,500,000	April 5th, 1913
Funabashi	Funabashi-Kashiwa...	13.10	3.6	400,000	April 10th, 1913
Ishikawa-Denki ...	Rokutobayashi-Tsuruki	7.64	3.6	350,000	April 22nd, 1913
Chita-Keiben	Taketoyo-Morosaki...	11.64			
	Taketoyo-Tokoname	7.00	2.6	380,000	March 1st, 1913
	Total	18.64			
Owari-Denki	Hiromichi-Ida	21.50	3.6	1,000,000	May 2nd, 1913
Sengu	Sendai-Miyanojo	19.00	3.6	600,000	May 10th, 1913
Maruko-Denki ...	Kamimaruko-Oyaeki	5.00	3.6	250,000	May 10th, 1913
Onsen-Denki	Kawaminami-Komatsu	14.00	3.6	1,000,000	June 18th, 1913
Onoda-Keiben... ...	Nata-Iburibashi				
Akami-Keiben ...	Sue-Onoda...	3.00	3.6	150,000	June 17th, 1913
Nagao	Tomita-Akami	3.71	2.6	50,000	June 19th, 1913
Hakuho-Keiben ...	Shimbo-Tochio...	11.20	2.6	300,000	June 23rd, 1913

(5) LIGHT RAILWAYS NOT YET OPEND FOR BUSINESS.—*Continued.*

Name of Co.	Section	Mileage	Gauge	Capital	Approved date of establishment
		m. ch.	*ft. in.*	*yen*	
Shin-yabakei	Shirakawa-Tanakura	14.00	2.6	200,000	June 23rd, 1913
	Tsutami-Mameda, Yahata-Mori	26.65	3.6	1,850,000	June 26th, 1913
Nagareyama-Keiben	Mahashi-Nagareyama	3.51	2.6	70,000	July 1st, 1913
Bugei-Keiben	Iwasa-Takatomi	6.61	3.6	225,000	July 1st, 1913
Shingu-Keiben	Higashihashizaki-Shingu	2.00	4.8	75,000	July 16th, 1913
Maruoka	Maruoka-Maruokamachi	2.13	2.6	50,000	July 15th, 1913
Teizankei	Nacho-Teizankei	18.08	3.6	700,000	July 16th, 1913
Takegahana-Keiben	Kasamatsu-Takegahana	4.22	3.6	150,000	July 16th, 1913
Kinan-Keiben	Wakayama-Yuasa	24.00	3.6	1,300,000	Aug. 1st, 1913
Kii-Keiben	Yuasa-Tanabe	32.24	3.6	1,800,000	Aug. 1st, 1913
Utsunomiya-Sekizai	Tsuruta-Arahari	4.33	3.6	250,000	Aug. 7th, 1913
Yosan	Asami-Omachi	47.40	3.6	3,000,000	Aug. 9th, 1913
Ryoshin	Shibata-Nuttari	16.79	3.6	600,000	Aug. 15th, 1913
Toya	Nishinasuno-Oko	25.16			
	Kawanishi-Karasuyama	14.00	3.6	2,000,000	Aug. 15th, 1913
	Total	39.16			
Onomichi-Keiben	Kurihara-Joge	29.65	2.6	1,200,000	Aug. 15th, 1913
Seno-Keiben	Niwase-Seno	2.64	2.6	100,000	Aug. 15th, 1913
Nagato	Kozuki-Nishiichi	11.00	3.6	400,000	Aug. 15th, 1913
Asakuma-Tozan	Asakuma-Fujimitoge	.50	3.0	50,000	Aug. 19th, 1913
Seidaiji-Kido	Seidaiji-Kuban	3.50	3.0	250,000	Aug. 16th, 1913
Nara-Keiben	Nara-Toshi	1.24	2.6	60,000	Sept. 14th, 1913
Ikomayama-Kosaku	Tanida-Nabata	.66	3.6	140,000	Sept. 18th, 1913
Hokushin-Denki	Nagano-Hirao	20.40	3.6	1,500,000	Sept. 16th, 1913
Iiyama-Keiben	Nakano-Kijima	7.20	2.6	250,000	Sept. 16th, 1913
Kokuto	Yasaka-Tomiku	21.20	2.6	800,000	Oct. 4th, 1913
Mihata-Keiben	Tsunahama-Fujisaki	4.40	2.6	180,000	Oct. 15th, 1913
Iwamatsu-Keiben	Iwamatsu-Takachika	1.60	2.6	69,500	Oct. 15th, 1913
Ishikari-Sekitan-Keiben	Bibai-Numakai	5.39	3.6	3,750,000	Oct. 14th, 1913
Takada	Nagasu-Takada	3.37	2.6	110,000	Oct. 18th, 1913
Nakazeki-Keiben	Bofu-Nakazeki	4.08	2.6	150,000	Oct. 18th, 1913
Ito	Atami-Ito	11.63	3.6	750,000	Nov. 10th, 1913
In-yo-Renraku	Shinminato-Hibara	58.00	2.6	2,500,000	Nov. 13th, 1913
Beppu-Keiben	Noguchi-Beppu	2.48	3.6	140,000	Nov. 21st, 1913
Moji-Chikko	Tanoura-Sone	11.20	3.6	2,000,000	Nov. 26th, 1913
Kibitsu-Keiben	Magane-Niwase	2.40	2.6	80,000	Nov. 26th, 1913
Kominato	Goi-Kominato	31.50	3.6	2,200,000	Nov. 26th, 1913
Makio	Hamadera-Yokoyama	11.48	3.6	500,000	Dec. 1st, 1913
Kuji-Keiben	Sakagami-Honda	9.00	3.6	300,000	Dec. 12th, 1913
Omine	Omine-Ofuku	2.60	3.6	100,000	Jan. 12th, 1914
Kuno-Keiben	Kataha-Shimizu	12.36			
	Fujimi-Mio	2.20	2.6	400,000	Jan. 12th, 1914
	Total	14.56			
Echigo-Denki	Takada-Naoetsu	6.13	3.6	300,000	Jan. 12th, 1914
Kashima-Sangu	Takahama-Nobukata	27.40	3.6	600,000	Jan. 12th, 1914
Mine-Keiben	Omine-Kitawake, Omine-Nishiwake	3.40	3.6	150,000	Jan. 29th, 1914
Hinokami-Keiben	Shinji-Kisuki, Hataya-Daito	13.40	3.6	500,000	Jan. 31st, 1914
Shinnakaseki	Yoita-Teradomari	11.10	3.6	350,000	Jan. 31st, 1914
Karasuyama	Hoshakuji-Karasuyama	11.25	3.6	400,000	Feb. 6th, 1914
Arima	Sanda-Arima	7.27	3.6	500,000	Feb. 14th, 1914
Yukuhashi-Keiben	Yukuhashi-Shintawara, Kanaya-Minoshima	5.59	3.6	150,000	March 3rd, 1914
Sanriku-Keiben	Semine-Kaminuma	12.40	2.6	400,000	March 7th, 1914
Kibi	Sosha-Yagake	11.20	2.6	600,000	March 23rd, 1914
Oyama	Hiratsuka-Atsugi	9.40			
	Ota-Takabeya	4.60	2.6	300,000	March 27th, 1914
	Total	14.20			
Sokai	Yokohama-Yokosuka	13.70			×March 31st, 1914
	Kanazawa-Misaki	17.60	3.6	3,000,000	March 31st, 1914
	Total	31.50			
Uraga	Yokosuka-Uraga	3.36	3.6	200,000	March 31st, 1914
Total		**3,103.68**	—	**122,790,340**	

N.B.—The cross (×) in the 'approved date of establishment' column indicates date of designation as light railway.

(6) LIGHT RAILWAY LINES NEWLY OPENED FOR TRAFFIC DURING THE YEAR UNDER REVIEW.

Name of Co.	Section	Open mileage	Date of Opening
		m. ch.	
Banshu	Kakogawamachi-Kunikane	4.61	Apr. 1st, 1913
Awanokuni-Kyodokisen	Tokushima-Komatsushima	6.71	„ 20th, „
Echigo	Izumozaki-Jizodo	10.26	„ „ „
Shimabara	Koshiromachi-Omisaki	5.25	May 10th, „
Tatsuno-Denki	Aboshiminato-Hashizaki Tatsuno-Aboshi Branch	8.59	„ 28th, „
Yokkaichi	Kawashimamura-Yunoyama	6.21	June 1st, „
Tateyama-Keiben	Namerikawa-Gohyakkoku	8.58	„ 25th, „
Fuji-Minobu	Fuji-Omiyamachi	6.32	July 20th, „
Yoro	Ogaki-Yoro Ogaki-Ikeno	15.27	„ 31st, „
Matsuzaka-Keiben	Hiraomachi-Okuchi	1.61	Aug. 7th, „
Banshu	Kunikane-Nishiwaki	15.59	„ 10th, „
Miyazaki (prefectural management)	Obi-Aburatsu	3.72	„ 18th, „
Aichi-Denki	Jingumae-Akihamae	0.29	„ 31st, „
Yokkaichi	Suwa-Kawashimamura	3.30	Sept. 24th, „
Shimabara	Omisaki-Minatoshinchi	5.07	„ „ „
Tomakomai-Keiben	Tomakomai-Saruta	25.08	Oct. 1st, „
Tosan-Denki	Imabashi-Deharu	0.22	„ 15th, „
Iwate-Keiben	Hanamaki-Tsuchisawa	7.69	„ 25th, „
Miyazaki-Keiben	Utsumi-Akae	12.37	„ 31st, „
Joso	Torite-Shimodate	31.70	Nov. 1st, „
Shimotsui-Keiben	Ajino-Chayamachi	8.78	„ 11th, „
Toso	Fujiedashin-Ote	2.23	„ 16th, „
Tomo-Keiben	Tomo-Nogami	7.15	„ 17th, „
Ihara Kasaoka-Keiben	Kasaokamachi-Ihara	12.06	„ „ „
Banshu	Kakogawamachi-Takasagoguchi	2.69	Dec. 1st, „
Miyazaki (prefectural management)	Miyazaki-Fukushima	8.68	„ 15th, „
Minato	Katsuta-Nakaminato	5.10	„ 25th, „
Nagara-Keiben	Nagara-Takatomi	3.14	„ „ „
Yabakei	Nakatsu-Hida	8.70	„ 26th, „
Ina-Denki	Inamachi-Miyata	5.36	„ 27th, „
Choshi-Yuran	Choshi-Inubo	3.46	„ 28th, „
Konan	Shinhachiman-Yokaichiguchi	5.32	„ 29th, „
Ube-Keiben	Ube-Ubeshinkawa	4.08	Jan. 9th, „
Chuen	Shinfukuroi-Shinyokosuka	6.21	„ 12th, „
Ujima	Ujima-Yabakei	10.47	„ 21st, „
Nagoya-Denki	Biwajimabashi-Shintsushima	8.63	„ 23rd, „
Takeoka-Keiben	Shintakeo-Gobuichi	4.16	„ 29th, „
Mikawa	Kariyashin-Ohamaminato	9.00	Feb. 5th, „
Kyoto-Dento	Shinfukui-Ichiarakawa	12.06	„ 11th, „
Omi	Takamiya-Taga	1.42	March 8th, „
Kyoto-Dento	Ichiarakawa-Katsuyama	5.02	„ 11th, „
Shimotsui-Keiben	Shimotsui-Ajinomachi	4.04	„ 15th, „
Kihoku-Keiben	Kitakatamachi-Chusetsu	4.07	„ 29th, „
Total		**324.07**	

(7) CAPITAL ACCOUNT.

GENERAL BALANCE SHEET.

(a) Assets.

Private Railway

Name of Co.	Unpaid capital	Cost of construction		Stores on hand	Payment under adjustment	Deposits	Cash on hand	Negotiable bonds	Amount receivable	Miscellaneous	Total
		Open line	Line not yet opened								
	yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
Narita	—	2,471,462	—	12,751	—	233,323	99	1,436	64,413	—	2,783,484
Chuetsu	440,000	1,299,185	—	10,712	6,927	159,555	—	5,700	9,336	22,403	1,953,818
Nankai	2,333,615	8,859,622	—	164,818	55,606	409,157	—	6,556	219,419	2,857,888	14,906,681
Tobu	4,708,565	8,025,385	39,378	527,368	22,696	127,233	219	13,984	66,849	84,775	13,616,452
Hakatawan	539,500	1,478,470	—	3,861	47,237	108,733	507	—	26,332	1,217	2,205,857
Yokohama	360,000	3,702,612	—	—	2,473	21,641	8	—	5,563	—	4,092,297
Ashio	125,225	2,388,499	15,689	76,648	13,321	21,679	127	—	55,533	—	2,696,721
Total	**8,506,905**	**28,225,235**	**54,967**	**796,158**	**148,260**	**1,081,321**	**960**	**27,676**	**447,445**	**2,966,283**	**42,255,310**
Iyo	216,000	1,087,306	—	23,468	20,248	22,162	—	15,447	1,676	—	1,386,307
Ome	102,000	595,571	—	5,086	31,660	46,959	564	1,480	17,438	92,812	893,670
Kawagoe	70,000	465,199	—	10,702	—	46,526	757	—	10,806	—	603,990
Kotsuke	60,150	607,451	—	1,833	—	24,651	132	—	—	—	694,217
Toyokawa	—	1,134,460	—	7,658	20,324	60,619	—	5,000	9,327	—	1,237,388
Bisai	72,000	718,203	140,401	4,985	10,098	46,630	93	6,406	8,909	3,807	1,011,532
Omi	45	1,763,855	—	18,332	8,779	17,580	297	2,280	8,944	2,607	1,822,719
Kanan	—	445,611	—	8,120	713	9,317	53	1,100	7,361	—	472,275
Chugoku	—	4,214,497	803	38,822	11,901	237,299	17	6,961	29,032	65,938	4,605,270
Ryugasaki	14,312	78,494	—	238	26,931	351	—	—	2	4,888	125,216
Jobu	160,270	1,016,041	34,353	6,493	8,587	12,510	405	—	6,579	—	1,245,238
Mito	—	315,977	—	2,491	327	74,621	—	—	6,238	—	399,654
Sunzu-Denki	—	621,339	—	—	—	9,452	—	—	735	2,091	633,617
Koyatozan	914,825	1,217,688	216,978	19,751	52,185	—	72	28,320	15,475	10,834	2,476,128
Kozaka	900,000	1,115,028	—	17,355	987	—	—	—	8,383	28,004	2,069,757
Chiba (prefectural management)	—	791,229	17,353	—	—	—	19,584	—	—	97,930	926,096
Shimabara	17,645	1,100,403	—	23,335	22,933	53,274	2,763	—	20,255	—	1,240,608

Uonuma	25,275	261,197	—	3,229	960	16	118	2,749	5,716	—	299,260
Nishio	22,500	260,205	—	16,599	108,084	—	227	—	60	—	407,675
Kamaishi Colliery	—	276,380	—	—	—	—	4,068	—	—	361	280,809
Tosan-Denki	—	785,695	6,941	5,985	58,675	7,121	70	—	542	262,785	1,127,814
Hatsuse	97,500	270,675	—	172	48,059	434	66	—	1,693	1,133	419,732
Aichi-Denki	900,000	1,326,159	—	48,983	14,438	34,795	41	2,202	11,083	259,872	2,597,573
Nagoya-Denki	—	2,008,607	708,257	186,577	44,492	334	1,516	16,324	—	—	2,966,107
Kada-Keiben	75,000	221,898	—	1,234	—	11,359	167	—	42	—	309,700
Matsuzaka-Keiben	—	609,856	600	1,454	381	2,084	128	—	12,124	—	626,627
Echigo	—	1,649,581	—	50,698	6,644	—	442	700	5,179	—	1,713,244
Yoshino	5	648,358	—	6,806	45,650	71	650	—	618	6,012	709,170
Semboku-Keiben	560,000	495,473	5,024	3,167	3,874	8,929	—	52	100	—	1,076,619
Kagoshima-Denki	500,000	449,123	—	16,597	4,964	320,481	541	2,020	182	85,961	1,379,869
Shingu	—	615,471	—	14,417	1,285	16,819	1	—	92	5,050	653,135
Okawa	—	389,996	13,779	6,967	34,786	3,543	—	400	25	—	449,496
Banshu	3,655	1,629,207	107,885	104,935	38,661	12,676	190	19,725	49,867	755	1,967,556
Awanokuni-Kyodo	—	837,938	—	—	—	11,177	—	—	—	10,244	859,359
Tatsuno-Denki	26,466	576,887	—	4,898	12,253	3,423	—	—	241	—	624,168
Yokkaichi	—	231,229	—	1,113	1,829	—	5	—	1,094	5,158	240,428
Tateyama-Keiben	—	318,186	—	—	159	390	6	—	12,606	—	331,347
Fuji-Minobu	3,407,595	531,601	—	447	13,759	61,519	446	—	12,193	111,516	4,139,076
Yoro	600,000	1,005,924	99,310	46,448	2,219	36,143	193	—	5,454	61,485	1,857,176
Miyazaki (prefectural management)	—	565,183	384,967	—	—	—	—	—	—	—	950,150
Tomakomai-Keiben	—	469,215	—	479	181	40,097	—	—	335	—	510,307
Iwate-Keiben	515,277	260,429	355,799	2,278	—	162,937	232	7,343	—	44,487	1,348,782
Miyazaki-Keiben	125,000	554,099	—	3,734	23	151	951	—	8	—	683,966
Joso	16,880	1,195,033	—	20,537	7,213	45,605	115	16,009	28,752	4,830	1,334,974
Toso	117,397	112,709	—	48,337	46,407	26,235	641	—	—	396	352,122
Tomo-Keiben	63	322,856	8,225	—	14,389	10,793	285	485	—	—	357,096
Ihara-Kasaoka-Keiben	—	349,463	—	2,340	2,212	825	649	50	262	—	355,801
Minato	163,300	204,128	—	—	18,403	3,499	507	—	—	685	390,522
Konan	—	268,882	—	5,448	3,512	114	—	6,160	3,216	—	287,332
Nagara	36,000	160,185	—	5,203	7,322	61	119	—	—	—	208,890
Kihoku-Keiben	100,000	211,857	—	—	1,570	7,607	469	—	—	735	322,238
Total	**9,819,160**	**37,362,037**	**2,100,675**	**797,751**	**758,077**	**1,491,189**	**37,580**	**141,213**	**302,644**	**1,171,476**	**53,981,802**
Grand Total	**18,326,065**	**65,587,272**	**2,155,742**	**1,593,909**	**906,337**	**2,572,510**	**38,540**	**168,889**	**750,089**	**4,137,759**	**96,237,112**

(b) Liabilities.

	Name of Co.	Capital	Bonus and debentures	Legal reserve	Special reserve	Receipts under adjustment	Security money	Balance brought over from preceding year	Profits for the year under review	Dividends payable	Amount payable	Miscellaneous	Total
		yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
Private Railway	Narita	2,425,000	—	85,956	93,249	12	8,225	7,580	113,807	1,519	48,136	—	2,783,484
	Chuetsu	1,600,000	63,001	117,265	69,671	20,933	7,991	3,028	66,690	—	239	—	1,953,818
	Nankai	10,000,000	3,790,000	399,300	33,357	20,772	11,248	215,034	297,593	16,442	122,935	—	14,906,681
	Tobu	9,000,000	4,069,887	123,600	69,729	12,842	12,394	14,786	208,401	1,045	103,768	—	13,616,452
	Hakatawan	2,075,000	—	32,010	7,263	1,198	4,567	12,270	55,676	2,134	15,739	—	2,205,857
	Yokohama	3,500,000	465,000	15,930	—	2,549	557	8,135	52,466	5,723	—	41,932	4,092,297
	Ashio	2,500,000	—	2,800	2,888	2,379	869	1,226	40,194	538	7,138	138,689	2,696,721
	Total	**31,100,000**	**8,392,888**	**776,861**	**276.157**	**60.685**	**45.851**	**262,059**	**834,827**	**27,401**	**297,955**	**180,626**	**42,255,310**
	Iyo	1,200,000	24,500	72,700	7,500	1,065	9,434	10,406	50,959	705	9,038	—	1,386,307
	Ome	750,000	—	25,500	58,675	261	—	15,397	30,742	455	12,640	—	893,670
	Kawagoe	500,000	—	38,200	9,782	35	—	3,917	33,236	—	17,749	1,071	603,990
	Kotsuke	500,000	150,000	8,601	14,862	—	2,645	1,770	14,489	1,168	682	—	694,217
	Toyokawa	1,100,000	—	40,000	12,340	1,534	27	804	56,014	623	26,046	—	1,237,388
	Bisai	720,000	217,822	16,630	—	—	12,154	173	20,207	1,238	23,308	—	1,011,532
	Omi	1,100,090	82,000	27,300	—	1,954	3,911	12,734	26,246	696	27,378	140,500	1,822,719
	Kanan	350,000	—	4,920	84,356	418	1,582	55	14,849	13	16,082	—	472,275
	Chugoku	4,300,000	—	95,550	—	10,089	21,359	8,399	122,344	—	47,529	—	4,605,270
	Ryugasaki	91,000	30,687	184	—	—	—	—	3,345	—	—	—	125,216
	Jobu	1,000,000	172,182	10,000	17,252	484	2,964	4,125	19,226	2,107	17,898	—	1,245,238
	Mito	230,000	85,744	13,580	40,036	1,113	—	3,384	17,804	—	7,993	—	399,654
	Sunzu-Denki	600,000	—	—	—	10,018	—	—	22,622	—	—	977	633.617
	Koyatozan	2,000,000	372,374	12,330	5,460	8,037	40,907	1,127	26,736	1,130	7,993	34	2,476,128
	Kozaka	1,000,000	1,514	2,000	—	4,652	—	9,147	6,483	—	1,045,961	—	2,069,757
	Chiba (prefectural management)	727,000	—	—	—	—	—	—	—	—	—	199,096	926,096
	Shimabara	800,000	300,000	971	—	4,518	1,129	1,630	12,104	3,657	—	116,599	1,240,608
	Uonuma	250,000	32,435	15	80	3,676	—	294	2,291	163	1,762	8,544	299,260
	Nishio	300,000	80,841	1,110	650	7,254	—	112	11,173	5	1,995	4,535	407,675
	Kamaishi Colliery	250,000	29,613	—	—	—	—	—	361	—	—	835	280,809
	Tosan-Denki	1,000,000	103,196	—	—	16,436	60	—	7,522	—	600	—	1,127,814

Hatsuse	250,000	160,770	1,700	—	1,647	1,099	—	—	—	14,516	—	419,732
Aichi-Denki	2,000,000	536,277	5,035	6,876	—	1,223	2,060	36,742	—	—	9,360	2,597,573
Nagoya-Denki	2,901,287	—	—	—	1,626	16,382	—	46,797	—	15	—	2,966,107
Kada-Keiben	300,000	—	1,600	—	—	—	369	7,731	—	—	—	309,700
Matsuzaka-Keiben	400,000	200,000	800	1,181	3,396	—	5,574	8,711	142	6,823	—	626,627
Echigo	1,500,000	159,109	1,200	3,487	5,151	790	2,732	22,835	327	17,613	—	1,713,244
Yoshino	520,000	153,614	510	—	—	—	11,014	7,996	—	16,036	—	709,170
Semboku-Keiben	1,000,000	33,583	1,365	2,800	247	—	6,744	12,988	112	18,780	—	1,076,619
Kagoshima-Denki	1,000,000	350,000	1,450	—	387	6,735	4,237	15,789	298	973	—	1,379,869
Shingu	600,000	12,900	1,700	1,085	8	2,021	23,557	11,423	—	441	—	653,135
Okawa	250,000	192,300	—	—	—	2,000	584	3,520	—	1,092	—	449,496
Banshu	1,800,000	80,289	1,800	3,217	110	25,766	1,682	42,078	—	10,614	2,000	1,967,556
Awanokuni-Kyodo	848,182	—	—	—	—	—	—	11,177	—	—	—	859,359
Tatsuno-Denki	400,000	218,393	1,068	—	1,751	—	120	2,366	470	—	—	624,168
Yokkaichi	200,000	35,468	—	—	1,555	—	2,936	—	—	469	—	240,428
Tateyama-Keiben	320,000	869	—	—	1,430	—	—	6,888	—	102	2,058	331,347
Fuji-Minobu	4,000,000	97,084	—	—	15,056	6,831	—	14,337	1,217	4,551	—	4,139,076
Yoro	1,500,000	306,530	—	—	5,641	1,657	6,756	12,272	—	24,320	—	1,857,176
Miyazaki (prefectural management)	859,935	—	—	—	—	—	—	—	—	—	90,215	950,150
Tomakomai-Keiben	500,000	—	—	—	817	2,423	—	7,067	—	—	—	510,307
Iwate-Keiben	1,000,000	300,000	—	502	—	7,806	10,290	142	—	42	30,000	1,348,782
Miyazaki-Keiben	500,000	44,500	—	28	220	—	9,617	1,989	—	127,612	—	683,966
Joso	1,000,000	280,000	—	1,440	—	16,009	—	11,178	—	18,360	7,987	1,334,974
Toso	300,000	52,011	—	—	50	—	—	—	—	61	—	352,122
Tomo-Keiben	200,000	152,200	—	—	—	485	—	171	—	4,240	—	357,096
Ihara-Kasaoka-Keiben	250,000	97,887	—	—	31	637	4,879	858	—	1,509	—	355,801
Minato	250,000	—	—	—	136,710	—	—	125	—	2,542	1,145	390,522
Konan	150,000	136,955	—	130	115	100	—	32	—	—	—	287,332
Nagara	120,000	88,000	—	—	335	—	—	—	—	555	—	208,890
Kihoku-Keiben	250,000	72,000	—	—	127	90	—	—	—	—	21	322,238
Total	**43,937,404**	**5,442,647**	**387,819**	**271,739**	**247,954**	**188,226**	**166,625**	**783,965**	**14,526**	**1,525,920**	**1,014,977**	**53,981,802**
Grand Total	**75,037,404**	**13,835,535**	**1,164,680**	**547,896**	**308,639**	**234,077**	**428,684**	**1,618,792**	**41,927**	**1,828,875**	**1,195,603**	**96,237,112**

(8) COST OF CONSTRUCTION.

(a) Analysis of Cost of Construction.

	Name of Co.	Surveying expenses	Superintending expenses	Land	Earthworks	Bridges	Culverts	Drain pipes	Tunnels	Permanent way	Stations	Wharfs	Rolling stock
		yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
Private Railway	Narita	12,375	41,748	305,868	443,514	199,614	70,671	27,882	29,265	655,659	97,714	—	373,521
	Chuetsu	9,055	37,304	93,729	102,979	152,155	43,933	9,936	—	220,267	58,969	964	249,618
	Nankai	12,089	186,396	849,578	540,498	625,124	128,812	26,273	181,999	942,114	522,915	1,086	1,551,918
	Tobu	57,881	98.348	1,077,748	632,158	1,098,790	279,181	30,252	—	1,553,159	440,893	—	1,449,677
	Hakatawan	24,434	52,957	213,397	147,923	87,173	45,390	9,398	—	294,730	55,814	69,563	267,200
	Yokohama	21,385	131,271	834,929	436,474	335,415	128,630	18,520	93,751	580,986	151,480	—	320,559
	Ashio	59,815	129,532	136,347	808,652	239,234	36,634	11,556	176,730	344,989	68,158	—	151,168
	Iyo	2,576	4,990	125,865	91,575	17,983	10,922	1,994	3,567	127,648	99,858	29,870	187,086
	Tobu	19,925	13,868	112,826	66,297	45,882	13,363	3,745	—	242,157	66,411	—	55,346
	Ome	2,477	6,561	61,927	31,317	3,404	927	4,167	53,289	177,539	20,659	—	203,196
	Kawagoe	1,520	4,339	53,655	29,908	16,625	2,809	1,593	—	144,531	19,377	—	158,435
	Kotsuke	2,910	12,203	42,841	100,954	135,768	15,019	2,617	29,003	91,204	18,525	—	104,187
	Toyokawa	4,856	20,965	172,964	113,137	195,821	12,859	6,225	—	205,508	26,625	—	223,068
	Bisai	5,648	9,874	197,176	34,938	24,922	30,313	7,749	—	256,521	50,832	—	159,835
	Omi	6,182	35,582	345,285	177,427	309,129	39,873	19,458	27,207	347,406	41,600	—	211,343
	Kanan	929	1,082	36,577	51,236	24,696	11,902	3,302	—	39,070	10,707	—	79,582
	Chugoku	14,955	64,533	549,479	1,021,413	389,999	139,460	18,862	340,478	562,184	160,522	—	550,845
	Ryugasaki	934	768	3,249	3,442	2,179	338	154	—	20,500	1,822	—	22,992
	Jobu	16,669	27,983	136,796	152,754	42,553	28,723	2,912	—	272,136	34.329	—	156,649
	Mito	1	—	1,546	2,187	4,361	211	231	—	965	8,003	—	19,845
	Sunzu-Denki	—	—	1,299	179	—	—	—	—	358	2,050	—	4,533
	Koyatozan	30,967	19,682	8,778	13,424	11,333	535	680	124,894	73,304	30,451	—	194,014
	Kozaka	4,642	53,544	57,779	141,686	143.916	7,990	5,450	178,432	206,931	42,791	—	204,352
	Chiba (prefectural management)	4,283	30,584	101,428	108,468	61,065	27,965	7,627	—	210,346	74,321	—	100,312
	Shimabara	56,226		223.445	157,037	112,660		19,278	9,877	252,653	46,665	—	46,760
	Uonuma	13,417		34,539	67,267	6,590		2,588	—	45,237	4,069	—	36,772
	Nishio	6.679		39,507	44,775	27,865		7,844	—	53,499	11,974	—	38,720

Kamaishi Colliery	1,892		2,469	40,554	40,554	54,842	—	—	56,142	11,731	—	96,880
Tosan-Denki	24,839		93,808	51,783	51,814	12,726	4,244	—	134,132	14,344	10,00	84,772
Hatsuse	1,500	2,500	39,642	58,141	19,087		—	—	45,132	1,224	—	54,082
Aichi-Denki	4,647	39,113	311,383	143,906	117,655	12,892	11,454	—	260,253	25,039	—	145,550
Nagoya-Denki	31,442	41,454	570,603	145,068	198,508	87,685	13,650	—	618,920	57,754	—	433,256
Chuetsu	1,685	5,869	19,130	63,600	20,427	4,009	3,031	7,503	49,295	7,561	—	27,023
Kada-Keiben	2,920	4,429	44,574	33,545	8,729	2,787	1,629	—	53,629	13,565	—	41,056
Matsuzaka-Keiben	17,940		107,533	114,961	69,908		12,193	—	124,279	27,079	—	67,026
Echigo	37,837		305,689	208,030	69,889		19,990	—	544,689	77,686	—	214,578
Yoshino	4,994	12,219	115,007	135,561	77,477		9,069	62,266	93,207	5,824	—	88,286
Semboku-Keiben	8,156	3,917	48,825	88,347	31,348	9,992	5,692	37,160	105,993	20,129	—	69,803
Kagoshima-Denki	2,438	8,703	65,168	33,669	12,811	22,082	3,623	—	127,439	—	—	42,653
Shingu	4,820	17,814	58,897	64,152	30,164	4,351	3,956	174,824	109,227	31,016	1,846	65,429
Okawa	11,068		61,894	56,311	41,287		—	—	130,853	8,798	—	41,960
Banshu	75,173		273,777	284,029	207,261	33,859	12,271	—	334,809	63,414	—	240,006
Awanokuni Kyodo Keiben	32,459		120,316	206,116	190,852	43,620	5,271	—	91,602	30,384	—	—
Tatsuno-Denki	31,084		57,004	55,144	44,339		—	—	132,089	—	—	77,095
Yokkaichi	3,461	2,176	62,599	22,667	9,443	5,207	3,915	—	65,587	1,102	—	27,239
Tateyama-Keiben	9,180		30,531	36,566	60,911		7,210	—	65,231	25,009	—	43,896
Fuji-Minobu	2,042	15,281	98,667	31,671	71,937	15,303	2,839	—	101,037	27,229	—	97,990
Yoro	26,217	32,593	241,357	146,060	91,461	53,722	10,513	—	216,048	37,311	—	130,513
Miyazaki (prefectural management)	—	—	—	—	—	—	—	—	—	—	—	—
Tomakomai-Keiben	11,968		11,668	54,452	53,809		—	—	163,992	15,914	—	118,458
Iwate-Keiben	21,658	5,395	59,445	88,105	109,900	5,119	3,655	—	185,444	16,261	—	50,896
Miyazaki-Keiben	9,380		50,206	88,252	131,792		5,471	—	121,724	26,198	—	52,210
Joso	36,512		181,256	107,036	60,099		16,838	—	455,773	77,253	—	137,692
Toso	752		25,046	16,337	12,266		—	—	13,087	8,476	—	25,023
Tomo-Keiben	11,138	4,807	77,099	91,018	11,038		21	—	44,761	9,311	—	36,334
Ihara Kasaoka-Keiben	5,493	7,384	101,707	56,787	5,807	3,375	2,505	—	84,831	14,568	—	39,077
Minato	3,356	10,421	12,232	30,576	3,081	384	1,035	—	48,015	6,604	—	45,668
Konan	8,135		47,568	27,794	28,783		2,517	—	70,016	10,715	—	31,642
Nagara-Keiben	5,804		24,861	17,500	21,060		—	—	37,645	1,218	—	19,176
Kihoku-Keiben	3,437		41,161	5,390	71,720		—	—	50,752	787	—	16,054

(b) Cost of Construction Per Mile Open.

	Name of Co.	Gauge	Motive power	Cost per mile
				yen
Private Railway	Narita	3 ft. 6 in.	*Steam*	54,824
	Chuetsu	,,	,,	46,289
	Nankai	,,	*Steam and Electric*	209,993
	Tobu	,,	*Steam*	100,740
	Hakatawan	,,	,,	89,986
	Yokohama	,,	,,	135,876
	Ashio	,,	,,	90,098
	Average			**107,704**
Light Railway	Tobu { Sano	,,	,,	20,884
	Tobu { Kiryu	,,	,,	51,847
	Ome	,,	,,	45,813
	Kawagoe	,,	,,	25,214
	Toyokawa	,,	,,	61,488
	Bisai	,,	,,	46,098
	Omi	,,	,,	64,047
	Kanan	,,	,,	43,347
	Jobu	,,	,,	48,268
	Mito	,,	,,	26,028
	Sunzu-Denki	,,	,,	58,396
	Koyatozan	,,	*Steam and Electric*	70,022
	Shimabara	,,	*Steam*	41,920
	Hatsuse	,,	,,	77,557
	Aichi-Denki	,,	*Electric*	72,349
	Nagoya-Denki	,,	,,	94,168
	Yoshino	,,	*Steam*	89,552
	Okawa	,,	,,	33,534
	Shingu	,,	,,	63,846
	Chugoku (main)	,,	,,	84,926
	Echigo	,,	,,	32,906
	Chuetsu	,,	,,	39,593
	Banshu	,,	,,	69,743
	Minato	,,	,,	39,109
	Yoro	,,	,,	65,575
	Nagara	,,	*Electric*	50,373
	Miyazaki-Keiben	,,	*Steam*	44,470
	Konan	,,	,,	49,793
	Joso	,,	,,	37,485
	Fuji-Minobu	,,	,,	83,062
	Awanokuni Kyodo Kisen	,,	,,	121,440
	Kihoku-Keiben	,,	*Electric*	51,672
	Average			**54,942**
	Chuetsu (Inari line)	2 ft. 6 in.	*Steam*	49,568
	Kotsuke	,,	,,	28,926
	Ryugasaki	,,	,,	28,033
	Kozaka	,,	,,	68,407
	Uonuma	,,	,,	32,326
	Nishio	,,	,,	31,312
	Kamaishi Colliery	,,	,,	27,945
	Semboku	,,	,,	28,459
	Matsuzaka	,,	,,	42,528
	Kada-Keiben	,,	,,	38,998
	Yokkaichi	,,	,,	23,986
	Toso	,,	,,	49,218
	Iwate	,,	,,	33,133
	Ihara-Kasaoka-Keiben	,,	,,	28,929
	Tomo-Keiben	,,	,,	44,904
	Tomakomai-Keiben	,,	,,	18,694
	Tateyama-Keiben	,,	,,	36,447
	Average			**34,030**
	Iyo	Miscellaneous	*Steam and Electric*	40,526
	Chiba (prefectural management)	,,	*Steam*	20,374
	Tosan-Denki	,,	*Electric*	99,079
	Kagoshima-Denki	,,	,,	112,281
	Tatsuno-Denki	,,	,,	66,005
	Miyazaki (prefectural management)	,,	*Steam*	44,328

(9) TRANSPORTATION.

(a) Working of Locomotives.

	Name of Co.	Locomotive mileage	Consumption of coal		Consumption of oil		Average per 100 loco miles			
							Coal		Oil	
		Amount	*Value*	*Amount*	*Value*	*Amount*	*Value*	*Amount*	*Value*
		mile	*kin*	*yen*	*koku*	*yen*	*kin*	*yen*	*koku*	*yen*
Private Railway	Narita	289,018	8,792,067	24,277	26.11	612	304	8.40	.009	.21
	Chuetsu	140,552	3,844,159	15,781	20.90	523	2,174	8.93	.012	.30
	Nankai	122,453	4,791,841	17,613	19.18	558	3,913	14.38	.016	.46
	Tobu	1,004,184	39,107,040	120,603	104.59	1,637	3,894	12.01	.010	.16
	Hakatawan	127,407	3,641,753	9,146	22.65	502	2,858	7.18	.018	.39
	Ashio	63,096	3,002,832	14,742	12.38	383	4,759	23.36	.020	.61
	Total	**1,746,690**	**63,179,692**	**202,162**	**205.81**	**4,215**	**3,544**	**11.34**	**.012**	**.24**
Light Railway	Iyo	375,032	3,566,223	14 321	19.04	428	951	3.82	.005	.12
	Tobu	100,151	986,328	2,845	8.71	139	985	2.84	.009	.14
	Ome	87,526	2,528,696	8,775	12.84	319	2,889	10.03	.015	.36
	Kawagoe	150,405	4,086,425	14,050	24.67	468	2,717	9.34	.016	.31
	Kotsuke	126,768	2,216,967	15,884	13.77	310	1,749	12.53	.011	.24
	Toyokawa	100,476	1,754,811	5,676	14.91	564	1,746	5.65	.015	.56
	Bisai	108,175	2,813,404	12,113	12.52	445	2,601	11.20	.012	.41
	Omi	155,346	3,809,081	13,251	18.52	612	2,452	8.53	.012	.39
	Kanan	37,684	1,350,837	4,990	10.70	228	3,585	13.24	.028	.61
	Chugoku	273,928	10,528,913	37,803	58.56	1,729	3,844	13.80	.021	.63
	Ryugasaki	19,993	693,000	2,633	8.04	111	3,471	13.17	.040	.56
	Jobu	95,844	2,876,328	8,271	22.70	533	3,001	8.63	.024	.56
	Mito	46,436	1,657,992	4,416	5.89	151	3,570	9.51	.013	.32
	Sunzu-Denki	57,115	1,031,016	4,746	5.32	102	1,805	8.31	.009	.18
	Koyatozan	52,318	1,838,911	6,062	5.89	132	3,515	11.59	.011	.25
	Kozaka	94,139	3,049,872	16,199	18.84	402	3,240	17.21	.020	.43
	Chiba (prefectural management)	136,770	4,306,310	18,256	28.51	955	3,149	13.35	.021	.70
	Shimabara	93,489	2,431,195	6,162	9.79	222	2,601	6.59	.010	.24
	Uonuma	34,799	615,490	3,147	4.79	127	1,769	9.04	.014	.37
	Nishio	72,782	664,121	3,021	9.20	179	912	4.15	.013	.25
	Kamaishi Colliery	83,174	2,194,987	7,855	57.30	1,319	2,639	11.19	.069	.0159
	Chuetsu	36,281	—	—	—	—	—	—	—	—
	Kada-Keiben	84,296	1,021,400	3,976	7.98	215	1,212	4.72	.009	.26
	Matsuzaka-Keiben	86,318	1,081,590	4,682	9.44	211	1,253	5.42	.011	.24
	Echigo	194,217	4,906,591	23,080	52.19	880	2,526	11.88	.027	.45
	Yoshino	53,084	1,271,407	5,838	8.21	219	2,389	11.00	.015	.41
	Semboku-Keiben	74,800	1,351,375	5,247	13.35	315	1,807	7.01	.018	.42
	Shingu	55,222	1,143,542	3,871	5.12	167	2,071	7.01	.009	.30
	Okawa	101,839	1,050,034	3,471	9.67	195	1,031	3.41	.009	.19
	Banshu	94,545	3,744,747	15,469	29.57	615	3,961	16.36	.031	.65
	Yokkaichi	53,683	573,598	2,818	7.87	189	1,068	5.25	.015	.35
	Tateyama-Keiben	16,469	246,960	956	2.23	99	1,500	5.80	.014	.60
	Fuji-Minobu	21,458	455,717	2,195	2.06	69	2,124	10.23	.010	.32
	Yoro	30,068	747,230	3,330	5.29	106	2,485	11.07	.018	.35
	Miyazaki (prefectural management)	38,828	890,618	4,060	6.75	194	2,294	10.45	.017	.50
	Tomakomai-Keiben ...	16,954	525,538	1,018	1.86	82	3,100	6.00	.011	.48
	Iwate-Keiben	9,475	243,600	1,070	3.25	69	2,571	11.29	.043	.73
	Miyazaki-Keiben	6,259	95,642	484	30	14	1,528	7.73	.048	.22
	Joso	65,545	2,328,480	8,464	9.23	240	3,552	12.91	.014	.37
	Toso	924	20,529	107	.43	11	2,222	11.58	.047	.0119
	Tomo-Keiben	2,534	34,658	146	.53	18	1,368	5.76	.021	.71
	Ihara Kasaoka-Keiben ...	8,050	132,888	536	2.11	46	1,651	6.66	.026	.57
	Minato	2,331	69,451	268	.42	11	2,979	11.50	.018	.47
	Total	**3,555,530**	**76,936,502**	**300,091**	**548.37**	**13,440**	**2,186**	**8.53**	**.016**	**.38**
Grand Total...		**5,102,220**	**140,116,194**	**502,253**	**754.18**	**17,655**	**2,746**	**9.84**	**.015**	**.34**
Increase against preceding year		1,102,537	32,428,638	157,432	147.11	4,008	54	1.22	—	—

(b) Working of Trains and Vehicles.

	Name of Co.	Train mileage				Vehicle mileage			Consumption of oil	
		Passenger train	Goods train	Mixed train	Total	Passenger Carriage	Goods Wagon	Total	*Amount*	*Value*
		mile	*mile*	*mile*	*mile*	*mile*	*mile*	*mile*	*koku*	*yen*
Private Railway	Narita	70,338	—	212,925	283,263	1,898,107	901,071	2,799,178	15.31	204
	Chuetsu	—	83	124,417	124,500	640,577	552,061	1,192,638	13.50	206
	Nankai	—	—	—	—	5,500,824	1,642,876	7,143,700	134.74	4,146
	Tobu	384,858	173,741	201,022	759,621	5,357,428	3,285,417	8,642,845	50.16	715
	Hakatawan	235	15,778	91,568	107,581	167,303	971,103	1,138,406	8.54	158
	Ashio	—	8,765	48,343	57,108	236,816	294,841	531,657	1.70	34
	Total	**455,431**	**198,367**	**678,275**	**1,332,078**	**13,801,055**	**7,647,369**	**21,448,424**	**223.95**	**5,463**
	Iyo	—	—	366,566	366,566	1,942,876	723,707	2,666,583	10.54	184
	Tobu	215	2,825	62,052	65,092	215,204	218,187	433,391	1.71	24
	Ome	151	547	75,318	76,016	312,481	554,346	866,827	9.14	148
	Kawagoe	20,626	395	121,514	142,535	811,436	414,363	1,225,799	5.10	62
	Kotsuke	—	12,246	110,073	122,319	535,780	320,942	856,722	8.80	132
	Toyokawa	1,285	2,073	94,432	97,790	606,242	231,074	837,316	11.07	144
	Bisai	890	—	100,851	101,741	570,830	145,566	716,396	13.30	228
	Omi	74,885	—	57,404	132,289	890,663	177,072	1,067,735	5.90 10.74 * 276,007	86 355 1,129
	Kanan	1,904	13,266	20,303	35,473	265,023	150,216	415,239	3.50 23.32 * 822.265	74 512 6,714
	Chugoku	11,808	3,417	231,768	246,993	1,263,957	1,201,430	2,465,387	30.71	397
	Ryugazaki	—	—	18,469	18,469	58,405	31,917	90,322	5.56	68
	Jobu	928	92	91,335	92,355	328,142	452,017	780,159	4.00	47
	Mito	—	—	44,611	44,611	143,511	185,522	329,033	.60	8
	Sunzu-Denki	366	—	53,269	53,635	289,081	75,360	364,441	3.29	58
	Koyatozan	—	47,740	—	47,740	1,600,247	348,076	1,948,323	34.19	943
	Kozaka	—	18,987	50,317	69,304	190,582	819,159	1,009,741	5.15	99
	Chiba (prefectural management)	—	—	132,307	132,307	432,192	309,157	741,349	5.07	96
	Shimabara	418	—	92,390	92,808	406,589	115,908	522,497	.60	7
	Uonuma	—	826	31,061	31,887	85,913	109,319	195,232	3.50	60
	Nishio	—	—	72,765	72,765	149,229	87,322	236,551	5.09	81
	Kamaishi Colliery	—	60,682	14,387	75,069	27,541	1,305,392	1,332,933	51.64	793
	Tosan-Denki	—	—	—	—	245,198	—	245,198	× 400	176

Hatsuse	—	—	—	—	59,284	—	59,734	5.59 .48 * 700,820	149 7 3,171
Aichi-Denki	—	—	—	—	350,885	5,579	356,464	△ 1,508 33.30	204 1,070
Nagoya-Denki	—	—	—	—	706,379	91,320	797,699	× 3,112 △ 4,170	2,637
Chuetsu	—	—	34,456	34,456	206,960	137,825	344,785	—	—
Kada-Keiben	—	—	82,347	82,347	149,161	89,058	238,219	1.90	60
Matsuzaka-Keiben	—	—	85,613	85,613	185,278	124,759	310,037	.86	11
Echigo	—	21,433	164,451	185,884	783,528	416,891	1,200,419	13.77	201
Yoshino	533	53	44,227	44,813	192,161	51,564	243,725	4.28	85
Semboku-Keiben	268	209	74,264	74,741	288,054	264,542	552,596	2.50	32
Kagoshima-Denki	—	—	—	—	220,381	22,414	242,795	△ 810 3.74	41 114
Shingu	—	—	54,128	54,128	160,840	160,174	321,014	1.20	29
Okawa	—	—	94,047	94,047	153,232	111,477	264,709	2.06	35
Banshu	—	287	90,316	90,603	493,170	171,401	664,571	35.47	701
Tatsuno-Denki	—	—	—	—	253,885	72,025	325,910	△ 180 4.50	80
Yokkaichi	348	3,546	48,430	52,324	54,806	26,720	81,526	1.21	24
Tateyama-Keiben	—	—	16,078	16,078	59,487	27,332	86,819	.64	36
Fuji-Minobu	5,738	—	15,701	21,439	13,696	8,144	21,840	.43	12
Yoro	—	—	29,651	29,651	188,700	8,286	196,986	1.85	35
Miyazaki (prefectural management)	—	—	37,018	37,018	141,145	50,014	191,159	1.97	38
Tomakomai-Keiben	—	—	16,954	16,954	45,177	143,844	189,021	4.07	110
Iwate-Keiben	—	232	9,022	9,254	16,163	23,986	40,149	.91	15
Miyazaki Keiben	—	—	6,182	6,182	22,361	10,990	33,351	△ 1.54	23
Joso	—	—	62,271	62,271	399,978	109,011	508,989	3.21	39
Toso	—	—	924	924	1,135	952	2,087	.15	2
Tomo-Keiben	—	—	2,520	2,520	4,061	2,620	6,681	.06	1
Ihara-Kasaoka-Keiben	—	—	7,606	7,606	23,608	6,345	29,953	.10	2
Minato	—	—	2,220	2,220	11,660	942	12,602	.12	2
Konan	—	—	—	—	9,994	54	10,048	* 108,410 4.30	617 32
Nagara	—	—	—	—	31,416	—	31,416	2.80	51
Kihoku-Keiben	—	—	—	—	1,140	—	1,140	△ 205	19
Total	**120,363**	**188,856**	**2,819,618**	**3,128,837**	**16,599,297**	**10,114,321**	**26,712,618**	—	—
Grand Total	**575,794**	**387,223**	**3,497,893**	**4,460,910**	**30,400,352**	**17,761,690**	**48,162,042**	—	—
Inc. or dec. (△) against preceding year	7,010	△ 33,469	870,253	843,794	4,957,457	3,153,789	8,112,246	—	—

N.B.—Figures marked with the cross (×) denote the amount in gallons, the triangle (△) the amount in pounds and the asterisk (*) the amount of coal in *kin*.

(c) Rolling Stock.

Name of Co.	Locomotives	Passenger Carriages	Goods Wagons
Narita	7	62	45
Chuetsu	5	27	109
Nankai	18	95	129
Tobu	25	91	214
Hakatawan	7	13	5
Ashio	5	22	8
Total	**67**	**310**	**510**
Iyo	17	65	14
Tobu	4	11	26
Ome	4	12	10
Kawagoe	5	15	14
Kotsuke	6	21	31
Toyokawa	4	28	33
Bisai	5	21	58
Omi	5	16	28
Kanan	2	20	5
Chugoku	12	59	112
Ryugasaki	2	4	2
Jobu	5	18	20
Mito	2	9	6
Sunzu-Denki	2	11	3
Koyatozan	5	49	9
Kozaka	8	8	6
Chiba (prefectural management)	3	31	18
Shimabara	4	16	7
Uonuma	—	9	12
Nishio	3	9	7
Kamaishi Colliery	5	3	3
Tosan-Denki	5	12	—
Hatsuse	—	6	—
Aichi-Denki	3	22	20
Nagoya-Denki	3	40	35
Kada-Kaiben	3	8	2
Matsuzaka-Keiben	6	10	15
Echigo	6	25	35
Yoshino	11	12	10
Semboku-Keiben	5	11	15
Kagoshima-Denki	3	7	2
Shingu	4	7	5
Okawa	5	11	5
Banshu	—	24	53
Tatsuno-Denki	—	11	7
Yokkaichi	—	6	3
Tateyama-Keiben	—	10	4
Fuji-Minobu	3	6	27
Yoro	5	24	30
Mayazaki (prefectural management)	4	10	9
Tomakomai-Keiben	5	7	2
Iwate-Keiben	2	4	3
Miyazaki-Keiben	3	8	8
Joso	6	27	29
Toso	4	8	5
Tomo-Keiben	4	6	7
Ihara-Kasaoka-Keiben	3	6	4
Minato	2	7	—
Konan	—	2	2
Nagara	—	4	—
Kihoku	—	6	—
Total	**198**	**782**	**761**
Grand Total	**265**	**1,092**	**1,271**
Increase against preceding year	68	194	359

(d) Accidents.

Item	Derailment						Collision						Overturned						Trains broken up	Trains misguided	Rolling stock failure					Track obstructed		Train obstructed		Cars outrunning	Fires	Others	Total No. of accidents
	No. of accidents	No. of vehicles derailed					Locomotives	Passenger trains	Electric trams	Steam motor car	Goods train	Vehicle	No. of accidents	Locomotive	Carriage	Electric tram	Steam motor car	Wagon			Locomotives	Carriage	Electric tram	Steam motor cars	Wagons	Natural calamities	Human agency	Natural calamity	Human agency				
		Locomotives	Carriages	Electric tram	Steam motor car	Wagons																											
Private Railways...	31	5	2	—	—	31	—	2	3	—	—	—	—	—	—	—	—	—	1	—	—	—	1	—	1	11	2	—	10	1	3	2	68
Light Railways ...	63	23	18	1	1	39	2	6	6	1	—	—	1	—	1	—	—	—	1	15	40	—	—	2	2	25	14	—	23	1	1	20	223
Total	**94**	**28**	**20**	**1**	**1**	**70**	**2**	**8**	**9**	**1**	**—**	**—**	**1**	**—**	**1**	**—**	**—**	**—**	**2**	**15**	**40**	**—**	**1**	**2**	**3**	**36**	**16**	**—**	**33**	**2**	**4**	**22**	**291**

(e) Casualties.

Item	Passengers								Railway employees								Passers-by								Total	
	Accident		Negligence		Suicide		Cause unknown		Accident		Negligence		Suicide		Cause unknown		Accident		Negligence		Suicide		Cause unknown			
	Killed	*Injured*	*Killed*	*Injured*	*Killed*	*Injured*	*Killed*	*Injured*	*Killed*	*Injured*	*Killed*	*Injured*	*Killed*	*Injured*	*Killed*	*Injured*	*Killed*	*Injured*	*Killed*	*Injured*	*Killed*	*Injured*	*Killed*	*Injured*	*Killed*	*Injured*
Private Railways ...	—	17	3	6	—	—	—	—	—	5	1	5	—	—	—	—	—	—	18	24	37	4	1	—	60	61
Light Railways... ...	—	16	—	6	—	—	—	—	—	3	2	6	—	—	—	—	—	—	11	26	41	8	1	2	55	67
Total	**—**	**33**	**4**	**12**	**—**	**—**	**—**	**—**	**—**	**8**	**3**	**11**	**—**	**—**	**—**	**—**	**—**	**—**	**29**	**60**	**78**	**12**	**2**	**2**	**115**	**128**

(a) Volume of Traffic and Earnings.

	Name of Co.	No. of passengers carried	Weight of luggage carried	Weight of goods hauled	No. of passengers carried one mile	Weight of goods hauled one mile	Earnings						Transit tax
							Passengers	Luggage	Mail matter	Goods	Miscellaneous	Total	
			ton	*ton*		*ton*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
Private Railway	Narita	1,207,289	619	149,070	15,918,211	3,231,495	293,407	5,569	1,505	× 68,884 / 2,896	20,004	392,265	8,185
	Chuetsu	1,044,917	453	182,489	7,426,440	1,529,635	130,459	3,646	1,582	× 64,402 / 9,912	23,242	233,043	5,676
	Nankai	11,858,733	4,784	417,449	84,805,907	7,470,286	1,012,039	36,030	3,227	× 165,117 / 19,101	15,604	1,251,118	49,238
	Tobu	2,340,549	1,542	688,520	33,343,383	12,842,580	557,670	14,641	2,953	373,398 / —	17,226	965,888	18,337
	Hakatawan	220,795	53	338,052	1,127,001	3,898,488	22,182	389	—	159,571 / —	19,600	201,742	1,430
	Ashio	183,343	88	62,060	1,909,198	1,207,865	33,022	860	390	× 33,495 / 4,775	12,418	84,960	1,343
	Total	**16,855,626**	**7,539**	**1,837,640**	**144,530,140**	**30,180,349**	**2,048,779**	**61,135**	**9,457**	× **864,867** / **36,684**	**108,094**	**3,129,016**	**84,199**
	Iyo	2,713,739	3,439	111,690	10,322,264	870,067	169,711	6,150	794	× 28,554 / 11,436	17,826	234,491	16,119
	Tobu	411,363	97	87,342	2,226,213	687,871	49,284	656	194	30,273 / —	47	80,454	2,379
	Ome	241,063	179	215,570	1,838,945	2,179,508	34,720	1,372	540	51,034 / —	7,019	94,685	1,465
	Kawagoe	664,620	507	134,658	5,099,197	1,624,840	84,924	4,712	749	50,020 / —	3,354	143,759	4,135
	Kotsuke	290,595	42	47,875	2,510,522	690,415	56,034	363	639	× 27,077 / 7,496	660	92,269	2,861
	Toyokawa	940,746	442	82,508	6,650,023	748,021	118,233	2,139	717	× 32,338 / 5,803	18,525	177,755	6,252
	Bisai	612,245	210	60,488	3,381,366	563,902	71,510	1,428	630	× 18,308 / 898	8,465	101,239	3,491
	Omi	602,139	572	69,770	3,994,590	727,072	105,993	4,030	1,063	33,647 / —	2,358	147,091	4,394
	Kanan	794,430	93	97,182	3,454,976	462,586	55,666	1,155	431	20,190 / —	3,595	81,037	3,083
	Chugoku	1,411,261	777	173,472	14,786,350	4,437,200	282,593	5,632	2,971	× 132,243 / 4,772	30,585	458,796	7,631
	Ryugasaki	113,332	17	12,712	304,100	35,595	9,223	143	288	× 3,678 / —	322	13,654	994
	Jobu	314,728	131	144,106	3,375,681	1,232,450	69,683	1,249	1,200	× 41,711 / 341	2,827	117,011	2,235
	Mito	250,509	19	54,810	2,375,304	624,839	38,546	1,186	612	25,946 / —	4,785	71,075	1,285
	Sunzu-Denki	576,504	198	43,181	3,209,988	296,774	61,837	1,181	600	13,618 / —	2,141	79,377	4,576
	Koyatozan	1,772,896	118	128,561	11,382,479	1,429,482	129,358	694	366	× 39,636 / 1,643	4,371	176,068	8,181
	Kozaka	127,100	97	206,599	1,502,414	2,349,968	30,862	769	720	× 100,920 / 17,710	703	151,684	1,267
	Chiba (prefectural management)	432,279	162	59,001	2,890,507	537,683	64,032	1,472	634	× 20,957 / 3,321	6,936	97,352	3,009
	Shimabara	358,680	108	10,694	2,049,521	61,456	53,980	1,200	768	× 5,903 / 662	561	63,074	1,980
	Uonuma	132,068	25	19,283	796,064	137,097	23,140	146	453	× 8,874 / 1,857	128	34,598	1,337
	Nishio	249,905	55	4,336	1,639,882	35,343	36,898	531	718	× 2,505 / 8	27	40,687	2,180

Kamaishi Colliery	37,072	2	249,269	289,615	2,323,539	5,749	25	—	53,431 —	20	59,225	387
Tosan-Denki	774,637	—	—	2,850,664	—	47,120	—	—	—	209	47,329	3,254
Hatsuse	276,330	24	—	875,015	—	26,174	40	113	—	39	26,420	1,236
Aichi-Denki	660,036	254	413	4,863,579	5,315	97,525	2,769	457	394 —	383	101,528	4,571
Nagoya-Denki	1,963,158	453	28,113	11,849,622	303,291	197,657	2,447	256	16,366 —	920	217,646	14,672
Chuetsu	270,543	62	9,920	1,158,289	50,746	24,973	368	347	× 3,158 436	1,461	30,743	1,510
Kada-Keiben	465,224	107	1,503	1,683,935	7,841	36,910	219	—	× 1,196 663	70	39,058	2,721
Matsuzaka-Keiben	211,778	10	9,651	1,422,811	93,094	28,398	106	—	× 2,542 251	128	31,425	1,546
Echigo	498,162	187	69,126	5,814,626	959,910	127,726	2,445	1,918	× 35,826 769	2,712	171,396	4,955
Yoshino	345,626	54	31,937	2,048,493	192,579	52,447	464	907	10,672 —	5,017	69,507	1,849
Semboku-Keiben	272,094	175	18,911	2,601,725	259,060	51,949	1,493	1,030	× 15,947 2,678	774	73,871	2,268
Kagoshima-Denki	958,455	254	—	2,342,718	—	58,817	656	—	—	198	59,671	5,836
Shingu	386,211	21	31,476	2,300,855	273,104	55,346	228	920	× 8,143 6,274	523	71,434	1,586
Okawa	308,626	51	4,429	1,617,853	36,297	37,258	298	267	2,146 —	79	40,048	2,499
Banshu	364,191	57	32,086	2,457,729	443,575	53,993	670	—	× 22,054 200	1,114	78,031	2,720
Tatsuno-Denki	499,718	—	37,653	1,998,872	245,612	43,304	—	—	9,644 —	385	53,333	4,013
Yokkaichi	125,094	5	13,215	452,458	67,576	12,929	16	—	2,229 —	42	15,216	603
Tateyama-Keiben	98,780	3	2,093	461,952	15,271	10,962	90	—	× 611 465	28	12,156	682
Fuji-Minobu	74,189	17	34,715	399,879	222,176	9,025	305	75	16,576 —	5,502	31,483	564
Yoro	193,667	30	4,546	1,200,188	28,504	27,076	148	—	1,185 —	957	29,366	1,026
Miyazaki (prefectural management)	224,676	7	3,508	981,916	19,053	17,892	68	184	785 —	133	19,062	1,689
Tomakomai-Keiben	7,643	1	23,485	137,526	522,819	3,915	28	348	16,730 —	7	21,028	76
Iwate-Keiben	18,723	1	2,732	136,678	21,856	3,680	12	—	856 —	11	4,559	193
Miyazaki-Keiben	35,461	5	1,310	251,371	15,469	4,685	53	8	979 —	5	5,730	237
Joso	196,967	90	22,662	1,726,596	347,097	33,278	865	252	12,195 —	539	47,129	1,352
Toso	6,310	—	93	14,315	214	344	—	—	11 —	25	380	61
Tomo-Keiben	12,211	1	53	68,816	345	1,223	4	—	× 23 8	17	1,275	78
Ihara Kasaoka-Keiben	27,827	1	2,415	180,533	25,732	4,520	10	—	1,067 —	21	5,618	266
Minato	3,191	8	775	16,274	3,951	304	31	—	308 —	4	647	41
Konan	33,487	2	70	150,785	350	4,660	15	—	58 —	—	4,733	341
Nagara	48,895	—	—	156,464	—	3,959	—	—	—	—	3,959	561
Kihoku-Keiben	2,296	—	—	5,740	—	170	—	—	—	—	170	34
Total	**22,411,480**	**9,170**	**2,399,997**	**136,308,281**	**26,216,545**	**2,630,195**	**50,081**	**22,169**	× 920,438 69,837	**136,612**	**3,829,332**	**142,278**
Grand Total	**39,267,106**	**16,709**	**4,237,637**	**280,838,421**	**56,396,894**	**4,678,974**	**111,216**	**31,626**	× 1,785,305 106,521	**244,706**	**6,958,348**	**226,477**
Increase against preceding year	6,970,208	2,682	622,461	47,345,061	9,843,235	961,454	22,519	7,044	× 428,807 115,685	92,169	1,396,308	40,773

N.B.—Figures marked with the cross (×) under 'Earnings-goods' column denote terminal charges.

(b) Average Volume of Traffic and Earnings per Mile Open.

	Name of Co.	Open mileage at the end of the year	Average open mileage during the year	Average No. of pass. carried per day per mile	Average tonnage of goods hauled per day per mile	Average miles of travel per passenger	Average pass. earnings per pass. per mile	Average miles of haul per ton	Average goods earnings per ton per mile
		mile	*mile*		*ton*	*mile*	*yen*	*mile*	*yen*
Private Railway	Narita	45.06	45.08	967	196	13.2	.0184	21.7	.0213
	Chuetsu	23.06	23.08	882	182	7.1	.0176	8.4	.0421
	Nankai	42.15	42.19	5,507	485	7.1	.0119	17.9	.0221
	Tobu	72.33	72.41	1,262	486	14.2	.0167	18.7	.0291
	Hakatawan	16.34	16.43	188	650	5.1	.0197	11.5	.0409
	Ashio	26.41	11.98	436	272	10.4	.0173	19.5	.0277
	Total	**225.55**	**211.17**	**1,875**	**392**	**8.6**	**.0142**	**16.4**	**.0289**
	Iyo	26.66	26.97	1,049	88	3.8	.0164	7.8	.0328
	Tobu	20.34	20.43	299	92	5.4	.0221	7.9	.0440
	Ome	13.00	13.00	388	459	7.6	.0189	10.1	.0234
	Kawagoe	18.36	18.45	757	241	7.7	.0167	12.1	.0308
	Kotsuke	21.00	21.00	328	90	8.6	.0223	14.4	.0392
	Toyokawa	18.36	18.45	988	111	7.1	.0178	9.1	.0432
	Bisai	15.46	15.58	599	99	5.5	.0211	9.5	.0325
	Omi	27.43	26.11	419	76	6.6	.0265	10.4	.0463
	Kanan	10.22	10.28	921	123	4.5	.0161	4.8	.0436
	Chugoku	50.20	50.25	806	242	10.5	.0191	25.6	.0298
	Ryugasaki	2.64	2.80	298	35	2.7	.0303	2.8	.0436
	Jobu	21.04	21.05	439	160	10.7	.0206	8.6	.0338
	Mito	12.11	12.14	536	141	9.5	.0162	15.4	.0415
	Sunzu-Denki	10.51	10.64	831	77	5.6	.0193	6.9	.0459
	Koyatozan	17.31	17.39	1,793	225	6.4	.0114	11.1	.0277
	Kozaka	16.24	16.30	253	395	11.8	.0205	11.4	.0430
	Chiba (prefectural management)	38.51	38.64	205	38	6.7	.0222	9.1	.0390
	Shimabara	26.20	20.64	272	8	5.7	.0263	5.7	.0961
	Uonuma	8.06	8.08	236	46	6.0	.0291	7.1	.0647
	Nishio	8.25	8.31	541	12	6.6	.0225	8.2	.0709
	Kamaishi Colliery	9.71	9.89	80	644	7.8	.0199	9.3	.0230

Tosan-Denki	7.74	7.78	1,004	—	3.7	.0165	—	—
Hatsuse	3.39	3.49	687	—	3.2	.0299	—	—
Aichi-Denki	18.26	17.02	683	1	7.5	.0201	12.9	.0741
Nagoya-Denki	21.26	21.27	1,526	39	6.0	.0167	10.8	.0540
Chuetsu	5.66	5.83	544	24	4.3	.0216	5.1	.0622
Kada-Keiben	5.55	5.69	811	4	3.6	.0219	5.2	.1525
Matsuzaka-Keiben	14.27	13.13	297	19	6.7	.0200	9.6	.0273
Echigo	50.10	47.05	339	56	11.7	.0220	13.9	.0373
Yoshino	7.19	7.24	775	73	5.9	.0256	6.0	.0554
Semboku-Keiben	17.33	17.41	409	41	9.6	.0200	13.7	.0616
Kagoshima-Denki	4.00	4.00	1,605	—	2.4	.0251	—	—
Shingu	9.51	9.64	654	78	6.0	.0241	8.7	.0298
Okawa	11.50	11.63	381	9	5.2	.0230	8.2	.0591
Banshu	23.29	15.80	426	77	6.7	.0220	13.8	.0497
Tatsuno-Denki	8.59	8.74	627	77	4.0	.0217	6.5	.0393
Yokkaichi	9.51	6.83	181	27	3.6	.0286	5.1	.0330
Tateyama-Keiben	8.58	3.80	333	11	4.7	.0237	7.3	.0400
Fuji-Minobu	6.32	2.35	452	259	5.4	.0226	6.4	.0746
Yoro	15.27	5.17	636	15	6.2	.0226	6.3	.0416
Miyazaki (prefectural management)	12.60	5.01	537	10	4.4	.0182	5.4	.0408
Tomakomai-Keiben	25.08	6.33	60	226	18.0	.0285	22.3	.0320
Iwate-Keiben	7.69	3.40	110	18	7.3	.0269	8.0	.0392
Miyazaki-Keiben	12.37	1.06	651	40	7.1	.0186	11.8	.0633
Joso	31.70	13.19	459	72	8.8	.0193	15.3	.0706
Toso	2.23	.09	421	6	2.3	.0240	2.3	.0514
Tomo-Keiben	7.15	.28	681	3	5.6	.0178	6.5	.0667
Ihara-Kasaoka-Keiben	12.06	1.49	332	47	6.5	.0250	10.7	.0415
Minato	5.10	.53	83	20	5.1	.0187	5.1	.1657
Konan	5.32	1.38	300	2	4.5	.0309	5.0	.0780
Nagara	3.14	.84	508	—	3.2	.0253	—	—
Kihoku-Keiben	4.07	.03	478	—	2.5	.0296	—	—
Total	**771.64**	**633.90**	**589**	**116**	**6.1**	**.0193**	**10.9**	**.0351**
Grand Total	**997.39**	**845.07**	**911**	**186**	**7.2**	**.0167**	**13.3**	**.0317**

(11) REVENUE ACCOUNT.

	Name of Co.	Earnings from Traffic					Working Expenses						Profit	
		Coaching	Goods	Sundry receipts	Other receipts	Total	Maintenance of way	Transportation	Traffic	General	Taxes and dues	Total	Profit	Proportion to cost of construction
		yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*%*
Private Railway	Narita	300,482	71,780	20,003	14,107	406,372	36,648	55,681	31,842	22,604	30,490	177,265	229,107	.93
	Chuetsu	135,494	83,814	13,735	5,930	238,973	13,778	33,290	19,462	7,809	21,403	95,742	143,231	1.34
	Nankai	1,051,297	184,219	15,602	30,285	1,281,403	52,803	124,224	133,651	72,489	87,654	570,821	710,582	.80
	Tobu	575,265	373,398	17,230	15,436	981,329	47,569	154,822	110,823	18,707	60,639	392,560	588,769	.81
	Hakatawan	22,572	159,571	19,599	10,188	211,930	14,443	33,261	23,933	14,203	14,449	100,289	111,641	.79
	Ashio	34,337	38,887	11,736	1,475	86,435	19,056	24,117	18,569	20,606	3,943	86,291	144	—
	Total	**2,119,447**	**911,669**	**97,905**	**77,421**	**3,206,442**	**184,297**	**525,395**	**338,280**	**156,418**	**218,578**	**1,422,968**	**1,783,474**	**.63**
	Iyo	181,433	41,280	11,778	3,035	237,523	19,929	35,237	54,120	9,027	17,305	135,618	101,908	.93
	Tobu	50,135	30,273	46	356	80,810	9,184	32,135	22,844	3,397	3,993	71,553	9,257	.12
	Ome	36,633	51,036	7,016	901	95,586	5,810	27,509	13,799	3,143	6,545	56,806	38,780	.65
	Kawagoe	90,406	50,087	3,276	2,383	146,152	11,457	33,647	15,957	10,266	9,328	80,655	65,497	1.41
	Kotsuke	57,035	34,573	661	2,399	94,668	11,872	30,373	9,458	2,881	5,091	59,675	34,993	.58
	Toyokawa	121,090	38,141	18,524	5,724	183,479	9,937	19,167	16,510	16,044	13,114	74,772	108,707	.96
	Bisai	73,668	26,537	1,034	1,514	102,753	8,384	23,711	15,466	5,450	6,637	59,648	43,105	.60
	Omi	111,085	33,647	2,359	690	147,781	17,413	32,747	16,891	7,742	9,061	83,857	63,924	.38
	Kanan	57,252	20,190	3,595	476	81,513	5,366	25,800	11,318	5,828	5,106	53,418	28,095	.63
	Chugoku	291,425	137,105	30,266	13,830	472,626	40,051	89,533	46,276	20,340	32,201	228,402	244,224	1.22
	Ryugasaki	9,653	3,698	303	307	13,961	790	4,355	1,104	1,043	464	7,756	6,205	.77
	Jobu	72,165	42,190	2,656	2,570	119,581	12,453	22,768	16,112	8,902	6,938	67,173	52,408	.52
	Mito	40,345	25,946	4,784	7,166	78,241	6,632	11,713	10,545	5,254	5,554	39,698	38,543	1.22
	Sunzu-Denki	63,660	13,658	2,059	1,268	80,645	6,900	12,792	11,870	1,430	2,900	35,892	44,753	.72
	Koyatozan	130,418	41,573	4,077	9,635	185,703	6,889	61,692	24,428	11,345	13,826	118,180	67,523	.55
	Kozaka	32,355	118,645	684	498	152,182	19,058	35,371	13,923	7,788	5,916	82,056	70,126	.63
	Chiba (prefectural management)	66,148	24,318	6,886	1,336	98,688	17,648	38,433	22,506	4,261	—	82,848	15,840	.20
	Shimabara	55,949	6,566	559	8,966	72,040	12,848	17,397	14,794	7,890	6,950	59,879	12,161	.14
	Uonuma	23,851	10,746	—	327	34,924	5,157	7,908	5,529	6,791	276	25,661	9,263	.35
	Nishio	38,146	2,513	28	906	41,593	4,352	7,190	6,213	3,025	224	21,004	20,589	.79
	Kamaishi Colliery	5,793	53,432	—	—	59,225	7,717	39,162	11,130	855	—	58,864	361	.01

Tosan-Denki	47,120	—	209	5,093	52,422	10,398	26,793	9,489	11,008	381	58,069	5,647	.07
Hatsuse	26,327	—	93	31	26,451	2,861	7,854	3,479	3,758	1,002	18,954	7,497	.28
Aichi-Denki	100,750	394	384	3,780	105,308	8,535	28,752	10,613	5,950	3,793	57,643	47,665	.39
Nagoya-Denki	200,392	16,366	888	—	217,646	12,053	47,463	22,928	9,935	4,814	97,193	120,453	.60
Chuetsu	25,694	4,160	889	—	30,743	2,147	5,220	3,015	1,252	2,164	13,798	16,945	.73
Kada-Keiben	37,129	1,859	70	277	39,335	2,625	8,754	7,136	2,594	855	21,964	17,371	.78
Matsuzaka-Keiben	28,511	2,793	121	202	31,627	5,172	9,898	7,169	3,741	1,420	27,400	4,227	.08
Echigo	132,613	36,605	2,178	941	172,337	38,927	44,701	35,435	8,114	1,513	128,690	43,647	.28
Yoshino	53,832	10,710	4,965	550	70,057	7,257	12,180	11,559	4,119	889	36,004	34,053	.53
Semboku-Keiben	54,917	18,634	320	758	74,629	13,856	11,201	12,375	3,419	1,866	42,717	31,912	.64
Kagoshima-Denki	59,099	374	198	3,999	63,670	4,048	6,848	10,036	9,180	173	30,285	33,385	.74
Shingu	56,495	14,420	520	1,374	72,809	8,014	8,842	11,988	5,452	2,227	36,523	36,286	.59
Okawa	37,688	2,146	215	751	40,800	2,412	1,413	13,815	8,379	140	26,159	14,641	.38
Banshu	54,703	22,256	1,072	5,496	83,527	7,070	30,187	25,734	12,181	6	75,178	8,349	.08
Tatsuno-Denki	43,304	9,661	368	624	53,957	3,528	13,129	9,734	4,964	1,501	32,856	21,101	.37
Yokkaichi	12,947	2,229	40	267	15,483	6,240	5,566	3,019	2,919	37	17,781	2,298	.14
Tateyama-Keiben	11,052	1,076	28	181	12,337	3,414	2,623	3,324	2,858	12	12,231	106	.01
Fuji-Minobu	9,405	16,576	5,502	4,615	36,098	1,624	5,303	14,149	612	73	21,761	14,337	.73
Yoro	27,224	1,185	957	268	29,634	1,914	6,643	6,645	1,725	370	17,297	12,337	.36
Miyazaki prefectural management)	18,174	830	63	122	19,189	1,866	8,466	9,632	4,466	—	24,430	5,241	—
Tomakomai-Keiben	4,291	16,730	7	—	21,028	2,384	4,353	1,714	2,310	1	10,762	10,266	.87
Iwate-Keiben	3,692	855	12	3,073	7,632	1,247	2,542	2,480	539	—	6,808	824	.07
Miyazaki-Keiben	4,748	980	2	345	6,075	878	965	1,076	585	21	3,525	2,550	.54
Joso	34,436	12,197	496	424	47,553	7,517	17,235	20,316	1,697	44	46,809	744	.02
Toso	344	11	25	396	776	11	137	99	—	—	247	529	1.14
Tomo-Keiben	1,226	31	18	356	1,631	88	590	700	927	12	2,317	686	.55
Ihara Kasaoka-Keiben	4,542	1,067	9	486	6,104	672	1,272	2,055	392	3	4,394	1,710	.40
Minato	338	309	—	—	647	84	121	258	59	—	522	125	.06
Konan	4,674	57	—	276	5,007	1,423	1,831	2,565	974	—	6,793	1,786	.26
Nagara	3,958	—	—	197	4,155	290	1,688	—	631	11	2,620	1,535	.36
Kihoku-Keiben	170	—	—	560	730	—	—	—	320	—	320	410	—
Total	**2,708,440**	**1,000,665**	**120,240**	**99,729**	**3,929,074**	**398,403**	**931,210**	**623,333**	**257,762**	**174,757**	**2,385,465**	**1,543,609**	**.50**
Grand Total	**4,827,887**	**1,912,334**	**218,145**	**177,150**	**7,135,516**	**582,700**	**1,456,605**	**961,613**	**414,180**	**393,335**	**3,808,433**	**3,327,083**	**.60**
Increase against preceding year	—	—	—	—	1,405,910	88,428	307,783	212,796	88,273	50,104	747,384	658,526	—

(11) REVENUE ACCOUNT.—*Continued.*

	Name of Co.	Miscellaneous revenues	Interest	Other charges	Net profit	Brought over from last year's account	Profit disposed				Carried forward to next year's account
							Reserve	Bonus	Dividend		
									Amount	Percentage	
		yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*%*	*yen*
Private Railway	Narita	—	—	—	229,107	6,156	35,850	22,000	1st term 84,875 2nd term 84,875	7.0 7.0	7,663
	Chuetsu	40,563	3,008	11,008	169,778	917	21,167	9,390	,, 68,500 ,, 69,600	12.0 12.0	2,038
	Nankai	236,342	238,480	23,228	685,206	168,053	34,300	17,000	,, 311,732 ,, 317,280	8.5 8.5	172,947
	Tobu	9,257	182,295	—	415,731	12,725	20,900	—	,, 196,017 ,, 208,050	10.0 10.0	3,489
	Hakatawan	—	—	—	111,641	11,912	5,590	5,580	,, 50,067 ,, 50,067	6.5 6.5	12,369
	Ashio	40,050	—	—	40,194	1,226	2,100	3,500	,, — ,, 35,101	— 3.2	719
	Total	**326,202**	**423,783**	**34,236**	**1,651,657**	**200,989**	**119,907**	**57,470**	**1,476,044**	—	**199,225**
	Iyo	—	4,201	—	97,707	10,159	6,200	6,000	1st term 40,500 2nd term 44,280	9.0 9.0	10,886
	Ome	22,284	31	—	61,033	15,305	11,950	3,100	,, 22,750 ,, 92,750	7.0 7.0	15,788
	Kawagoe	—	96	—	65,401	36,352	3,350	4,350	,, 20,100 special 40,200 2nd term 21,267	10.0 20.0 10.0	12,486
	Kotsuke	18,045	11,418	648	40,972	3,217	18,038	1,241	1st term 10,100 2nd term 10,100	new 8.0 old 3.0 ,, 8.0 ,, 3.0	4,710
	Toyokawa	—	—	3,000	105,707	3,811	5,350	1,400	,, 49,500 ,, 49,500	9.0 9.0	3,768
	Bisai	—	2,790	—	40,315	515	2,060	—	,, 19,440 ,, 17,820	6.0 5.5	1,510
	Omi	6,500	4,049	10,003	56,372	7,617	3,009	3,000	,, 22,000 ,, 22,000	4.4 4.4	13,980
	Kanan	—	—	—	28,095	652	5,420	1,160	,, 10,613 ,, 11,000	pref. 8.0 6.0 pref. 8.0 6.0	554
	Chugoku	—	—	496	243,728	8,616	12,250	16,000	,, 107,500 ,, 107,500	5.0 5.0	9,094
	Ryugasaki	—	499	5,706	—	—	—	—	—	—	—
	Jobu	—	14,976	—	37,432	4,818	6,000	1,860	,, 14,000 ,, 14,720	pref. 10.0 2.0 pref. 10.0 2.0	5,670
	Mito	—	651	—	37,892	2,748	10,000	6,700	,, 10,350 ,, 10,350	9.0 9.0	3,280
	Sunzu-Denki	—	—	—	—	—	—	—	—	—	—
	Koyatozan	—	16,424	—	51,099	439	2,650	—	,, 22,375 ,, 24,520	5.0 5.0	1,993
	Kozaka	—	59,580	—	10,546	8,384	700	—	,, 3,000 ,, 3,000	6.0 6.0	12,230
	Chiba (prefectural management)	—	35,688	—	* 19,848	—	—	—	—	—	* 19,848
	Shimabara	26,962	15,572	63	23,488	114	1,222	1,800	,, 11,200 ,, 8,000	3.0 2.0	1,380
	Uonuma	4,510	5,519	1,743	6,511	—	450	220	,, 2,000 ,, 3,200	2.0 3.0 pref. 7.5	641
	Nishio	—	16	395	20,178	66	1,660	1,850	,, 7,650 ,, 8,348	6.0 6.5	736

Kamaishi Colliery	—	—	—	361	—	—	—	361	—	—
Tosan-Denki	8,961	317	—	* 2,997	6,555	—	—	—	—	* 3,558
Hatsuse	—	11,319	—	3,822	2,689	—	—	—	—	* 1,133
Aichi-Denki	27,538	9,120	1,043	65,040	6,052	6,506	2,500	28,060	5.5	1,026
								33,000	6.0	
Nagoya-Denki	329,663	40,395	9,527	400,194	32,923	21,000	14,200	171,000	9.0	36,917
								190,000	10.0	
Kada-Keiben	—	887	591	15,893	206	1,500	1,570	6,400	6.4	529
								6,100	6.0	
Matsuzaka-Keiben	25,037	8,919	—	20,345	3,441	2,000	1,000	8,000	4.0	4,786
								8,000	4.0	
Echigo	19,859	6,282	—	57,224	9,336	2,500	3,800	25,500	3.4	4,760
								30,000	4.0	
Yoshino	—	16,006	—	18,047	2,473	910	2,810	—	—	16,800
Semboku-Keiben	—	85	—	31,827	4,606	4,650	1,000	13,200	6.0	4,383
								13,200	6.0	
Kagoshima-Denki	—	—	—	33,385	2,490	1,700	3,320	13,200	7.0	2,655
								15,000	6.0	
Shingu	—	1,816	750	33,720	5,103	2,788	3,440	—	—	14,595
								18,000	6.0	
Okawa	—	10,989	—	3,652	452	206	82	—	—	66
								3,750	3.0	
Banshu	69,784	488	1,500	76,145	145	3,950	2,350	29,880	4.0	1,590
								38,520	4.5	
Tatsuno-Denki	—	17,140	—	3,961	125	230	—	1,500	—	106
								2,250	—	
Yokkaichi	—	1,213	—	* 3,511	2,086	—	—	—	—	* 1,425
Tateyama-Keiben	6,810	28	—	6,888	2,058	345	50	—	—	1,927
								6,624	4.7	
Fuji-Minobu	—	—	—	14,337	—	717	—	—	—	688
								12,932	5.0	
Yoro	—	2,088	—	10,249	8,779	620	—	—	—	18,408
Miyazaki (prefectural management)	—	—	—	* 5,241	—	—	—	—	—	* 5,241
Tomakomai-Keiben	—	56	3,143	7,067	—	—	—	—	—	7,067
Iwate-Keiben	—	—	681	143	10,289	—	—	—	—	10,432
Miyazaki-Keiben	—	280	—	2,270	9,617	1,000	—	—	—	10,887
Joso	30,401	11,981	—	19,164	—	1,920	960	—	—	6,084
								10,200	3.0	
Toso	—	—	529	—	—	—	—	—	—	—
Tomo-Keiben	—	1,913	—	* 2,599	2,770	—	—	—	—	171
Ihara-Kasaoka-Keiben	—	853	—	857	4,880	50	—	—	—	3,787
								1,900	6.0	
Minato	—	—	—	125	—	125	—	—	—	—
Konan	4,723	2,905	—	32	—	—	—	—	—	32
Nagara	—	1,535	—	—	—	—	—	—	—	—
Kihoku-Keiben	—	323	87	—	—	—	—	—	—	—
Total	**601,077**	**318,448**	**39,905**	**1,715,378**	**206,778**	**143,026**	**85,763**	**1,478,210**	—	**215,157**
Grand Total	**927,279**	**742,231**	**74,141**	**3,367,035**	**407,767**	**262,933**	**143,233**	**2,954,254**	—	**414,382**
Inc. or dec. (△) against preceding year	490,956	461,790		740,969	△ 34,215	56,761	30,939	521,701	—	97,353

N.B.—The asterisk (*) indicates loss.

(12) DIRECTORS AND STAFF.

	Name of Co.	Directorate		General Affairs		Construction and Maintenance of Way		Transportation		Traffic		Accounts and Stores		Total	
		No.	Monthly salary	No.	Monthly salary	No.	Monthly salary	No.	Monthly salary	No.	Monthly salary	No.	Monthly salary	No.	Monthly salary
			yen		*yen*		*yen*		*yen*		*yen*		*yen*		*yen*
Private Railway	Narita	6	583	18	392	79	917	61	1,058	93	1,388	—	—	257	4,338
	Cheutsu	7	—	3	74	73	740	59	955	79	964	8	119	229	2,852
	Nankai	9	683	18	444	200	2,937	268	5,352	474	6,570	23	570	992	16,556
	Tobu	8	500	—	—	281	3,414	302	4,836	356	4,436	40	677	987	13,863
	Hakatawan	5	—	5	275		95	1,607		91	1,157	3	110	199	3,149
	Total	—	—	—	—	—	—	—	—	—	—	—	—	**2,664**	**40,758**
	Iyo	8	105	2	37	60	854	77	1,289	207	2,592	6	154	360	5,031
	Ome	8	125	2	53	21	325	28	461	44	616	—	—	103	1,580
	Kawagoe	7	88	5	139	32	335	23	411	52	653	—	—	119	1,626
	Kotsuke	6	65	2	60	26	282	25	389	32	376	—	—	91	1,172
	Toyokawa	6	150	2	152	24	323	24	436	62	919	4	93	122	2,073
	Bisai	10	142	3	94	29	396	27	425	58	707	—	—	127	1,764
	Omi	5	143	5	108	42	434	29	495	54	625	2	54	137	1,859
	Kanan	5	190	1	29	17	237	41	738	35	482	4	69	103	1,745
	Chugoku	9	200	17	490	98	1,591	41	662	150	1,745	—	—	315	4,688
	Ryugasaki	7	8	1	22	4	82	2	23	6	54	1	12	21	201
	Jobu	8	150	5	122			123	1,886			—	—	136	2,158
	Mito	5	25	2	44	20	267	20	317	33	445	5	124	85	1,222
	Sunzu-Denki	—	—	1	50		41	523		33	403	—	—	75	976
	Koyatozan	6	216	—	—		120	3,118		127	1,565	—	—	253	3,899
	Kozaka	4	—	7	301	40	685	31	624	47	857	—	—	129	2,467
	Chiba (prefectural management)	1	—	9	178	37	414	33	551	80	1,120	—	—	160	2,263
	Shimabara	12	163	4	102	75	815	29	407	66	637	8	166	194	2,290
	Uonuma	4	104	4	66	12	184	8	110	19	210	2	33	49	707
	Nishio	8	133	5	42	18	284	14	199	23	264	1	15	69	937
	Kamaishi Colliery	—	—	—	—	29	513	10	164	46	695	—	—	85	1,372
	Tosan-Denki	9	100	5	74			65	1,016			2	51	81	1,241

Hatsuse	5	—	—	—	9	107	16	269	14	245	—	—	44	621
Aichi-Denki	5	82	5	139	110	1,803	9	141	87	1,125	5	131	221	3,421
Nagoya-Denki	—	—	—	—	47	797	34	501	161	2,284	—	—	242	3,582
Kada-Keiben	6	90	1	19	10	199	13	177	25	264	2	32	57	781
Matsuzaka-Keiben	6	67	6	167	25	270	18	226	38	386	—	—	93	1,116
Echigo	10	192	6	172	112	1,646		194	2,683		7	214	329	4,907
Yoshino	12	—	—	—	22	369	11	198	45	658	3	70	93	1,295
Semboku-Keiben	8	205	3	219	31	417	18	319	29	458	4	108	93	1,726
Kagoshima-Denki	9	300	6	141	47	877		54	616		11	199	127	2,133
Shingu	11	85	7	148	27	450	14	243	50	617	—	—	109	1,543
Okawa	8	138	5	113	14	160		65	828		2	39	94	1,278
Banshu	9	375	21	436	75	1,273	66	975	79	1,026	12	325	262	4,410
Tatsuno-Denki	9	94	2	60		28	432		43	511	1	8	83	1,105
Yokkaichi	8	83	3	45	11	172		36	390		2	39	60	729
Tateyama-Keiben	8	108	5	87	11	145	18	157	27	283	—	—	69	780
Fuji-Minobu	12	350	5	123	49	801	33	526	61	847	3	88	163	2,735
Yoro	10	302	1	18			136	2,271			10	212	157	2,804
Miyazaki (prefectural management)	1	58	2	47			76	1,057			2	45	81	1,207
Tomakomai-Keiben	5	—	2	67	27	439	24	459	17	386	—	—	75	1,351
Iwate-Keiben	10	292	7	180	69	1,079	17	261	29	314	4	90	136	2,216
Miyazaki-Keiben	9	166	7	144	26	292	17	245	42	535	—	—	101	1,382
Joso	9	420	21	552	83	1,421	41	679	78	1,202	—	—	232	4,274
Toso	15	171	4	79	10	230	13	175	16	193	1	25	59	873
Tomo-Keiben	10	46	7	141	23	412	16	216	33	333	3	43	92	1,191
Ihara Kasaoka-Keiben	7	—	2	80	42	566	18	224	40	519	3	56	112	1,445
Minato	5	—	—	—	12	229	10	127	16	210	—	—	43	566
Konan	6	—	2	61	12	194	12	175	19	222	2	32	53	684
Nagara	8	78	4	40			27	300			—	—	39	418
Kihoku-Keiben	8	53					30	448					38	501
Total	—	—	—	—	—	—	—	—	—	—	—	—	**6,171**	**92,345**
Grand Total	—	—	—	—	—	—	—	—	—	—	—	—	**8,835**	**133,103**
Increase against preceding year	—	—	—	—	—	—	—	—	—	—	—	—	1,705	25,464

(13) STATE SUBSIDIES TO LIGHT RAILWAYS UNDER LIGHT RAILWAY LAW.

Under the Light Railway Law promulgated in 1911 and revised in 1914, privately-owned light railways were guaranteed their profit within the limit of 5 per cent. of their construction expenses for a period of 10 years after the date of opening of their business.

During the year under review 19 applications were tendered for subsidy, and 4 applications pending from the preceding year, of which 7 were sanctioned, 3 rejected and 13 are still under investigation. The light railways granted subsidy during the year are as follows :—

Name of Railway	Mileage	Date of sanctioning application
Uonuma	8.06	April, 1913
Joso	31.70	May, „
Ise	22.15	„ „
Uwajima	10.55	June, „
Shimotsui	4.04	
	8.78	„ „
Echigo	50.10	July, „
Matsuzaka	1.61	Nov., „
Total	**137.59**	

(14) SOUTH MANCHURIA RAILWAY.

(a) Mileage Open to Traffic and under Construction.

Section	Mileage open to traffic: Single track	Double track	Track mileage	Gauge	No. of stations	Mileage not yet opened for traffic: Section	Mileage	Date of opening
Main Line: Dairen-Changchun	201.61	239.38	226.18	4.85	67 * 1 × 1	Tafangshu-Liushutun	3.46	April, 1907
Main Line: No. 1 Junction-Lushun (Port Arthur)	28.70	—	3.47		4		—	
Main Line: Tashichiao-Yingkou	13.71	—	14.56		1		—	
Main Line: Yentai-Yentai Colliery	9.55	—	.73		1		—	
Main Line: Suchiatun-Laokutai	34.59	—	23.67		6		—	
Main Line: Junction point (32.41 m. from Suchiatun)—Yunganchiao	1.65	—	.36		1		—	
Main Line: Junction point (32.39 m. from Suchiatun)—Yangpaipu	.77	—	.54		—		—	
Antung Mukden Line: Mukden-Antung	170.61	—	56.26		24			
Total	**457.11**	**239.38**	**326.56**		104 * 1 × 1		**3.46**	
Inc. or dec. (△) against preceding year	4.70	—	16.53		△ 1 * 1			

N.B.—The cross (×) indicates signal stations and the asterisk (*) junction stations.

(b) Rolling Stock.

Locomotives	Passenger carriages	Goods wagons	Other vehicles
261	173	2,909	147

(c) Transportation.

Item	Main Line	Antung-Mukden Line	Inc. or dec. (△) against preceding year
Loco mileage	4,750,044	683,650	582,517
Fuel consumed (*ton*)	179,199	25,699	17,880
do. per loco mile: Amount (*kin*)	63.38	63.15	△ 1.42
do. per loco mile: Value (*yen*)	.0189	180	△ .004
Train mileage	4,151,707	624,510	499,096
Vehicle mileage	76,643,691	7,394,907	12,617,274

(d) Traffic.

Item	Main Line	Antung-Mukden Line	Inc. or dec. (△) against preceding year
Average open mileage for { pass. traffic	526.7	170.7	.1
Average open mileage for { goods traffic	528.3	170.7	.3
Open daily mileage for ... { pass. traffic	192,242.1	62,305.5	29.8
Open daily mileage for ... { goods traffic	192,812.0	62,305.5	95.9
No. of passengers carried	3,590,468	621,166	237,865
Tonnage of goods hauled	5,512,882	964,443	1,100,463
No. of pass. carried one mile	231,824,861	24,084,233	2,748,319
Tonnage of goods hauled one mile	1,033,574,039	80,032,232	218,065,357
Average No. of pass. carried per day per mile	1.206	387	11
Average tonnage of goods hauled per day per mill	5,361	1,284	862
Average pass. earnings per day per mile (*yen*)	23.662	8.350	.240
Average goods earnings per day per mile (*yen*)	77.792	18.617	8.868
Average No. of pass. carried per train mile	179	89	—
Average tonnage of goods per train mile	351	208	15
Average pass. earnings per train mile (*yen*)	3.273	1.764	.018
Average goods earnings per train mile (*yen*)	5.096	3.008	△ .107
Average mileage of journey per passenger	65	39	△ 3
Average mileage of haul per ton of goods	.188	83	—
Average pass. earnings per passenger (*yen*)	.183	.198	△ .001
Average goods earnings per ton (*yen*)	.145	.145	△ .010
Average earnings per day per mile (*yen*)	105.87	28.82	9.34
	Average 87.95		

(e) Traffic Receipts and Working Expenses.

Item	Main Line	Antung-Mukden Line	Total
	yen	*yen*	*yen*
Coaching Receipts	4,548,890.52	520,236.91	5,069,127.43
do. per day	12,462.71	1,425.30	13,888.02
do. per mile	8,636.59	3,047.67	7,340.18
do. per day per mile	23.66	8.35	20.11
Goods Wagon Receipts	14,999,220.07	1,159,950.87	16,159,170.94
do. per day	41,093.75	3,177.95	44,271.70
do. per mile	28,391.48	6,795.26	23,344.66
do. per day per mile	77.79	18.62	63.96
Miscellaneous Receipts	931,334.88	115,498.79	1,046,833.67
do. per day	2,551.60	316.44	2,868.04
do. per mile	1,757.24	676.61	1,508.62
do. per day per mile	4.81	1.85	4.13
Total receipts	20,479,445.47	1,795,686.57	22,275,132.04
do. per day	56,108.07	4,919.69	61,027.76
do. per mile	38,640.46	10,519.55	32,101.36
do. per day per mile	105.87	28.82	87.95
Increase against preceding year	1,856,426.86	511,248.90	2,367,675.76
do. per day	5,086.10	1,400.68	6,486.78
do. per mile	3,515.94	2,995.02	3,408.00
do. per day per mile	9.64	8.20	9.34
General Expenses	254,977.27	28,680.47	283,657.74
do. per day	698.57	78.58	777.14
do. per mile	481.09	168.02	408.79
do. per day per mile	1.32	.46	1.12
Transportation Expenses	2,078,255.50	366,786.55	2,445,042.05
do. per day	5,693.85	1,004.89	6,698.75
do. per mile	3,921.24	2,148.72	3,523.62
do. per day per mile	10.74	5.89	9.65
Rolling Stock Expenses	1,339,400.07	197,666.55	1,537,066.62
do. per day	3,669.59	541.55	4,211.14
do. per mile	2,527.17	1,157.98	2,215.11
do. per day per mile	6.92	3.17	6.07
Traffic Expenses	1,320,631.31	187,374.71	1,508,006.02
do. per day	3,618.17	513.36	4,131.52
do. per mile	2,491.76	1,097.68	2,173.23
do. per day per mile	6.83	3.01	5.95
Maintenance of Way Expenses	1,731,765.30	408,410.64	2,140,175.94
do. per day	4,744.56	1,118.93	5,863.50
do. per mile	3,267.48	2,392.56	3,084.27
do. per day per mile	8.95	6.55	8.45
Total expenses	6,725,029.45	1,188,918.92	7,913,948.37
do. per day	18,424.74	3,257.31	21,682.05
do. per mile	12,688.73	6,964.96	11,405.03
do. per day per mile	34.76	19.08	31.25
Inc. or dec. (△) against preceding year	77,392.35	△ 10,366.83	67,025.52
do. per day	212.04	△ 28.40	183.63
do. per mile	150.75	△ 60.73	94.97
do. per day per mile	.41	△ .17	.26

(f) General Balance Sheet.

Assets		Liabilities	
Item	Amount	Item	Amount
	yen		*yen*
Share capital unpaid	40,000,000.000	Share capital	160,000,000.000
Government investments	100,000,000.000	Legal reserve	1,132,888.660
Stores in stock	6,966,411.464	Special reserve	8,900,000.000
Coal in stock	1,301,116.020	Funded bonds	117,156,000.000
Negotiable bonds	782,845.000	Dues and charges	47,939.213
Exploitation funds	138,433,961.886	Amounts payable	3,130,718.763
Difference between face value and issue price of bonds	5,042,451.960	Receipts in suspense account	10,148,670.535
Amounts receivable	2,073,919.325	Savings of servants	688,364.260
Payments in suspense account	2,097,863.105	Caution-money of servants	1,591,263.640
Loans	6,119,089.500	Security money	136,533.730
Workshop account	773,280.168	Accounts unsettled with other concerns	254,577.410
Maintenance of way account	358,808.581	Brought over from preceding year's account	2,212.299
Deposits	8,093,403.451	Profit for the year	7,167,279.004
Stamps	10,117.445		
Cash on hand	452,179.609		
Total	**312,505,447.514**	**Total**	**312,505,447.514**

(g) Inventory of Property.

Assets		Liabilities	
Item	Amount	Item	Amount
	yen		*yen*
Share capital unpaid	40,000,000.000	Share capital	160,000,000.000
Government investments	100,000,000.000	Legal reserve	1,132,888.660
Stores in stock	6,966,411.464	Special reserve	8,900,000.000
Coal in stock	1,301,116.020	Funded bonds	117,156,000.000
Negotiable bonds	782,845.000	Dues and charges	47,939.213
Difference between face value and issue price of bonds	5,042,451.960	Amounts payable	3,130,718.763
Railways { Main line	48,125,872.173	Receipts in suspense account	10,148,670.535
Railways { Antung-Mukden line	24,136,498.878	Savings of servants	688,364.260
Shipping	4,892,636.558	Caution-money of servants	1,591,263.640
Electricity	4,747,114.827	Security money	136,533.730
Gas	1,296,649.538	Accounts with other concerns	254,577.410
Harbours	10,965,976.080	Brought over from preceing year's account	2,151,212.299
Workshops	6,064,830.207		
Hotels	1,617,224.159		
Miscellaneous buildings	10,551,198.029		
Structures and establishments, etc., in railway land	4,016,938.385		
Railway land	9,771,874.602		
Mining	12,247,148.450		
Loans	6,119,089.500		
Amounts receivable	2,073,919.325		
Payments in suspense account	2,097,863.105		
Articles unfinished in workshops	773,280.168		
Works incomplete	358,808.581		
Deposits	8,093,403.451		
Stamps	10,117.445		
Cash on hand	452,179.609	**Total**	**305,338,168.510**
Total	**312,505,447.514**	**Profit**	**7,167,279.004**
Grand Total	**312,505,447.514**	**Grand Total**	**312,505,447.514**

(h) Analysis of Exploitation Expenses.

Item	1913-14	1912-13	1911-12
	yen	*yen*	*yen*
Railway Construction { Main line	**1,438,396.096**	2,613,831.285	2,778,415.707
Railway Construction { Antung-Mukden line	**614,194.317**	1,892,546.800	9,231,539.316
Floating Stock	**1,507,279.113**	572,923.047	2,812,434.398
Electric Equipment	**86,581.957**	260,657.903	682,437.965
Gas Plants	**109,889.994**	422,913.236	178,685.637
Harbour facilities	**2,304,183.067**	1,645,683.621	682,662.230
Workshops	**149,708.360**	232,229.076	1,342,431.578
Hotels	**288,657.022**	253,893.847	125,178.149
Sundry Buildings	**851,675.346**	655,251.444	1,654,319.267
Establishments in Railway Land	**1,397,240.867**	487,922.813	704,231.480
Land	**1,367,059.329**	1,056,498.018	2,162,386.640
Mining	**1,748,556.317**	1,501,750.708	1,389,058.069
Total	**11,380,477.883**	11,596,101.798	23,543,780.436

(i) General Business Receipts and Expenses.

Item	Receipts	Expenses	Profit	1912-13
	yen	*yen*	*yen*	*yen*
Railways { Main line	20,479,445.470	6,725,029.450	13,754,416.020	11,975,381.510
Railways { Antung-Mukden line	1,795,686.570	1,188,918.920	606,767.650	85,151.920
Shipping	672,616.660	799,286.640	126,669.980	22,236.440
Mining	14,372,232.430	12,571,681.200	1,800,551.230	1,846,662.040
Harbours	1,911,716.570	1,728,910.500	182,806.070	199,336.160
Dues and Charges	900,852.660	1,951,538.280	1,050,685.620	767,800.390
Hotels	259,961.510	280,636.530	20,675.020	36,279.000
Electricity	977,880.330	642,809.830	335,070.500	272,140.190
Gas	183,500.420	106,057.360	77,443.060	79,333.720
Miscellaneous Receipts	117,509.087	—	117,509.087	65,575.440
Miscellaneous Losses	—	338,354.793	338,354.793	1,070,849.771
Bank Interest	745,721.720	—	745,721.720	264,582.850
General Expenses	—	2,671,617.640	2,671,617.640	2,059,996.880
Interest on Bonds	—	5,564,910.000	5,564,910.000	5,564,910.000
Loss on Difference between Face Value and Issue Price of Bonds made good	—	680,093.280	680,093.280	340,046.640
Total	**42,417,123.427**	**35,249,844.423**	**7,167,279.004**	**4,926,044.709**

Section III

TRAMWAYS.

SECTION III.

TRAMWAYS.

(RETURNS FOR THE YEAR ENDING MARCH 31ST, 1914).

GENERAL RESUME.

The Japanese tramways date back from 1880, when in February an application was tendered for the construction of the Tokyo Horse Tram Co.'s line. The application was sanctioned, and the line was completed and opened for traffic in June, 1883. This was soon followed by others in rapid succession, and especially since 1888 every year witnessed application for four or five horse tramway undertakings. The result was the promulgation of the Tramway Regulations by Law No. 71 on August, 23rd, 1891, by virtue of which horse tramways and similar means of transportation to be laid on public roads for general traffic came to be authorised subject to the special sanction of the Minister of Home Affairs. On October 22nd, 1908 it was further provided by Imperial Ordinance No. 266 that applicants for the construction of tramways on the Tramway Orders should also obtain the sanction of the Minister of Communications, whereupon the control of the tramways as to their construction and working came under the charge of the Imperial Government Railways. The following are the results of working during the year:—

Item		Electric tramways	Steam engine tramways	Petroleum motor tramway	Horse tramways	*Rikisha* tramways	Total
No. of tramways		55	23	1	35	12	**126**
Mileage	Open	565.28	203.34	29.51	269.72	70.64	**1,138.49**
	Under construction	262.11	66.95	9.84	19.46	1.41	**359.77**
Capital (*yen*)		249,297,380	5,170,000	1,000,000	2,163,060	601,500	**258,231,940**
Cost of Construction (*yen*)		242,007,716	5,042,808	1,121,536	2,288,212	650,522	**251,110,794**
Rolling Stock	Locomotives	3	116	55	1	—	**175**
	Carriages	3,506	196	30	535	96	**4,363**
	Wagons	184	251	105	587	430	**1,557**
Staff		20,610	1,003	247	1,374	625	**23,859**
Passengers carried	No.	558,431,796	6,384,694	1,907,730	9,212,380	293,174	**576,229,774**
	Earnings (*yen*)	22,454,673	698,820	142,797	631,844	29,080	**23,957,214**
Goods hauled	Tonnage	420,017	205,694	47,269	229,829	285,460	**1,188,269**
	Earnings (*yen*)	239,759	119,617	37,996	190,885	157,144	**745,401**
Revenue (*yen*)		31,061,976	1,085,414	195,197	887,340	350,511	**33,580,438**
Expenses (*yen*)		21,635,020	808,684	127,029	788,608	298,604	**23,657,945**
Profit (*yen*)		9,426,956	276,730	68,168	98,732	51,907	**9,922,493**
TRAMWAYS NOT YET OPENED FOR BUSINESS							
No. of tramways		26	9	—	16	8	**59**
Mileage of Lines sanctioned		247.47	50.51	—	110.21	26.69	**434.88**

(1) LIST OF TRAMWAYS OPEN TO BUSINESS AT THE END OF THE YEAR.

Name of Co. / Item	Section: Open	Section: Not yet opened
Electric Tramways:—	*mile*	*mile*
Kyoto Denki	15.68	4.30
Nagoya Denki	17.33	6.60
Keihin Denki	15.10	7.66
Odawara Denki	7.60	—
Bungo Denki	7.10	—
Yokohama Denki	6.44	—
Ise Denki	8.94	.71
Tokyo Denki (municipal management)	76.54	41.95
Osaka Denki (municipal management)	26.97	8.27
Tosa Denki	15.76	1.94
Yokohama Denki	11.43	25.77
Sedo Denki	13.61	.08
Hanshin Denki	19.49	6.15
Kawagoe Denki	8.14	—
Sunzu Denki	4.16	—
Iwamura Denki	7.53	—
Tamagawa Denki	5.73	—
Wakayama Suiryoku Denki	8.06	.30
Iwakuni Denki	3.54	.03
Kobe Denki	7.69	7.97
Hiroshima-Kure Denryoku	2.13	1.16
Ina Densha	10.96	1.22
Kyushu Dento	5.09	2.14
Kimen-Arima Denki	18.05	17.74
Hyogo Denki	5.70	10.68
Arashiyama Denki	4.51	2.37
Keihan Denki	33.85	.94
Atsuta Denki	2.40	.30
Nikko Denki	6.04	.09
Takasaki Suiryoku Denki	20.26	.13
Nankai	3.34	—
Tone Hatsuden	9.13	—
Seiso Denki	3.16	—
Mino Denki	18.12	.09
Kyushu Denki	18.35	6.53
Oji Denki	5.10	7.04
Matsuyama Denki	6.19	1.37
Kyushu Suiryoku Denki	4.26	3.85
Hankai Denki	10.19	4.07
Owari Denki	3.88	1.77
Takamatsu Denki	8.98	2.30
Okayama Denki	1.43	2.38
Kyoto Denki (municipal management)	16.44	.10
Keishin Denki	6.75	.19
Okazaki Denki	2.20	—
Keisei Denki	7.74	29.04
Hiroshima Denki	5.33	2.26
Onsen Denki	5.55	—
Otsu Densha	4.10	8.50
Nose Denki	3.98	3.83
Keio Denki	8.43	19.57
Mii Denki	7.74	20.69
Toyama Denki	3.16	—
Nagoya Tochi	1.89	.03
Shimonoisshiki Densha	4.01	—
Total	**565.28**	**262.11**
Rikisha (man-drawn) Tramways:—		
Utsunomiya Sekizai	18.45	—
Shimada Kido	1.78	—
Otome Jari	1.40	—
Iwafune Jinsha	5.25	—
Noda Jinsha	3.99	—
Kitsuregawa Jinsha	5.13	—
Nabeyama Jinsha	9.88	.11
Ebetsu Jinsha (communal management)	.46	—
Nasu Jinsha	3.46	.44
Tokatsu Jinsha	7.65	—
Nakaizumi Kido	3.54	.86
Chiba (prefectural management)	9.65	—
Total	**70.64**	**1.41**
Steam Engine Tramways:—	*mile*	*mile*
Dainippon Kido, Odawara Branch	15.44	—
do., Kumamoto „	14.71	11.78
do., Fukushima „	19.91	10.64
do., Shizuoka „	7.63	.25
do., Ise „	3.58	3.30
Asakura Kido	16.88	—
Dainippon Kido, Hamamatsu Branch	15.21	2.69
Mio Kido	11.02	—
Dainippon Kido, Hiroshima Branch	8.49	.06
Kyushu Suiryoku-Denki	12.88	3.02
Yanagawa Kido	4.31	.90
Kikuchi Kido	16.40	—
Seidaiji Kido	6.30	1.98
Dazaifu Kido	1.89	—
Kumamoto Kido	4.00	4.99
Shiobara Kido	6.50	1.85
Mie Kido	3.20	.90
Ryochiku Kido	9.56	15.05
Shonan Keiben	5.74	—
Kawakami Kido	4.46	.65
Kurate Kido	4.33	4.40
Iobara Kido	1.20	4.49
Nihon Iwo	9.70	—
Total	**203.34**	**66.95**
Petroleum Motor Tramway:—		
Chikugo Kido	**29.51**	**9.84**
Horse Tramways:—		
Akita Kido	3.19	—
Fuji-Minobu	3.89	—
Miharu Basha	8.21	—
Hakodate Suiden	9.10	2.03
Kanaishi Basha	3.10	—
Mitono Basha	9.41	—
Gotemba Basha	10.70	—
Kakuda Basha	12.24	—
Joto Basha	5.81	2.28
Tsuru Basha	12.90	—
Akiba Basha	8.19	—
Gyoda Basha	3.34	—
Kyushu Dento	6.85	1.03
Iruma Basha	6.30	—
Chubu Basha	9.69	—
Fuji Basha	10.20	—
Nanchiku Kido	6.43	—
Saga Kido	5.50	—
Shokin Basha	5.35	—
Yutoku Kido	15.14	—
Iwaki Tanko	6.04	—
Kamikawa Basha	5.35	—
Kokura Kido	2.23	.66
Yamanashi Keiben	15.75	—
Waka Keiben	12.50	—
Akai Kido	3.60	—
Azumashokai	3.34	—
Tsuyazaki Kido	2.91	—
Nakoso Kido	3.74	—
Fuji Kido	7.50	12.06
Sapporo Shigai	12.80	1.40
Onsen Denki	5.25	—
Tone Kido	13.24	—
Sapporo Kido	6.63	—
Azuma Kido	13.30	—
Total	**269.72**	**19.46**
Grand Total	**1,138.49**	**359.77**

(2) GENERAL BALANCE SHEET.

(A) Capital Assets.

Name of Co. / Item	Share capital unpaid	Cost of construction	Stores in stock	Payment on suspense account	Amount receivable	Negotiable bonds	Deposits	Cash on hand	Miscellaneous	Total
Electric Tramways :—	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
Kyoto Denki	—	5,887,958	61,521	37,937	5,387	—	22,532	21	—	6,015,356
Nagoya Denki	1,191,650	5,432,503	436,588	220,505	—	23,547	7,277	5,819	—	7,317,889
Keihin Denki	1,020,345	5,988,545	224,067	55,528	51,140	11,961	194	561	252,297	7,602,638
Odawara Denki	665,100	1,997,100	39,253	66,905	97,239	1,000	227	3,287	51,130	2,921,241
Bungo Denki	250,000	981,110	57,703	40,772	1,922	—	6,889	2,031	—	1,340,427
Yokohama Denki (formerly Enoshima)	—	669,452	8,253	246	9,933	—	—	1,451	541	689,876
Ise Denki	245,000	1,180,949	38,961	15,659	9,551	—	21,339	3,988	—	1,515,447
Tokyo Denki (municipal management)	—	84,288,701	1,576,785	—	—	—	388,556	8,115	6,801,697	94,063,854
Osaka Denki (municipal management)	—	28,738,098	901,092	—	—	298,400	233,126	260,666	485,407	30,916,789
Tosa Denki	—	1,818,564	55,680	7,448	8,879	1,177	—	2,114	313	1,894,175
Yokohama Denki	2,250,000	4,826,970	367,112	43,590	765	—	364,940	189	3,458	7,857,024
Sedo Denki	—	754,541	11,083	9,535	1,744	—	535	1,329	—	778,767
Hanshin Denki	1,600,000	8,785,486	187,221	69,634	—	22,631	245,384	14,121	9,909	10,934,386
Kawagoe Denki	—	309,357	—	—	8,112	8,682	10,356	2,472	67	334,046
Sunzu Denki	—	201,601	3,933	—	—	—	—	—	—	205,534
Iwamura Denki	—	215,100	1,331	1,074	—	—	1,276	301	—	219,082
Tamagawa Denki	300,000	1,093,384	7,579	985	5,987	—	8,344	785	6,146	1,423,210
Wakayama Suiryoku	1,040,000	2,682,977	57,809	98,228	17,025	2,010	31,566	3,079	1,303	3,933,997
Iwakuni Denki	—	252,868	4,674	202	784	—	127	540	—	259,195
Kobe Denki	3,290,000	14,394,573	498,516	101,083	68,106	10,854	22,604	36,568	—	18,422,304
Hiroshima-Kure Denryoku	280,000	1,594,878	68,495	1,403	26,536	—	6,121	4,102	—	1,981,535
Ina Densha	750,000	816,269	49,633	80,222	539	9,721	23,838	15,264	832	1,746,318
Kyushu Dento	2,262,500	5,681,033	207,968	279,240	131,716	524,662	183,632	4,745	705,875	9,981,291
Kimen-Arima Denki	2,200,000	5,785,380	64,920	24,463	39,497	145	32,693	—	542,199	8,689,297
Hyogo Denki	300,000	1,967,171	29,101	24,623	4	6,531	1,229	870	—	2,329,527
Arashiyama Denki	—	1,515,471	32,146	9,056	32,916	679	4,253	265	—	1,594,786
Keihan Denki	—	—	112,793	133,360	21,641	276,250	45,196	383	818,997	12,687,943
Atsuta Denki	80,000	172,521	2,399	267	—	—	750	—	13,026	268,963
Nikko Denki	45,000	11,279,323	794	—	1,870	—	11,776	155	20	423,179
Takasaki Suiryoku	325,000	1,235,004	23,441	120,589	5,641	4,250	91,308	2,316	54,992	1,862,546
Nankai	—	804,767	—	—	—	—	—	—	—	804,767
Tone Hatsuden	—	358,998	3,914	—	—	—	—	—	—	362,912
Seiso Denki	150,000	638,484	4,864	4,440	5,165	800	307	101	1,528	805,691
Mino Denki	300,000	1,074,679	62,709	25,767	—	—	8,202	676	—	1,472,033
Kyushu Denki	420,000	4,709,151	142,493	203,418	33,952	6,707	207,366	—	20,201	5,743,288
Oji Denki	—	1,618,411	33,001	7,217	2,528	—	4,738	2,678	45,483	1,714,056
Matsuyama Denki	—	1,014,833	15,476	9,342	12,049	—	18,610	2,004	95	1,072,409
Kyushu Suiryoku	6,910,507	6,317,481	176,167	125,294	56,034	733,319	571,445	2,574	14,858	14,907,679
Hankai Denki	1,080,000	4,291,153	37,431	147,868	1,616	11,700	7,730	2,589	—	5,580,087
Owari Denki	416,000	676,730	4,765	20,754	1,054	—	—	135	—	1,116,438
Takamatsu Denki	—	350,827	1,699	2,605	—	—	1,556	15	—	356,702
Okayama Denki	400,000	643,775	10,467	1,426	240	—	144	779	—	1,056,831
Kyoto Denki (municipal management)	—	10,223,957	—	—	—	—	—	—	—	10,223,957
Keishin Denki	15	1,939,175	12,870	19,414	1,317	—	7,317	880	—	1,980,988
Okazaki Denki	25,000	132,964	1,109	197	—	50	1,807	106	3,910	165,143

Keisei Denki	544,508	1,584,708	52,935	39,656	17,033	1,600	193,335	53	—	2,433,828
Hiroshima Denki	600,000	2,321,517	33,610	12,754	708	70	81,221	3,163	—	3,053,043
Yamanaka Denki	—	182,732	—	416	368	—	—	470	30,577	214,563
Otsu Densha	250,000	384,881	2,847	33,972	327	715	3,865	422	—	677,029
Keio Denki	840,375	794,084	38,963	92,732	391	—	1,833	212	24,150	1,792,740
Mii Denki	591,330	430,295	2,267	53	—	—	49,697	1,409	—	1,075,051
Toyama Denki	—	227,788	—	—	2,343	—	2,060	2,777	—	234,968
Nagoya Tochi	1,500,000	742,148	—	1,808	751	—	19,772	155	108,655	2,373,289
Total	**32,122,330**	**242,370,916**	**6,768,438**	**2,191,687**	**677,810**	**1,957,461**	**2,947,071**	**396,735**	**9,995,666**	**299,428,114**
Steam Engine Tramways:—										
Dainippon Kido	1,063,500	2,528,695	37,954	22,641	28,409	2,374	47,732	70	168,993	3,900,368
Asakura Kido	100,000	305,139	5,355	35,218	—	4,575	16,621	609	—	467,517
Mio Kido	52,600	208,820	1,586	1,470	857	—	1,768	81	122	267,304
Yanagawa Kido	69,000	86,202	512	337	—	1,815	2,415	3	—	160,284
Kikuchi Kido	43,700	312,317	—	607	—	60	9,809	444	4,161	371,098
Seidaiji Kido	—	343,128	10,086	—	254	—	8,038	448	3,401	365,385
Dazaifu Kido	—	58,031	—	393	—	—	2,609	915	—	61,948
Kumamoto Kido	150,000	78,225	411	—	—	—	986	5	—	229,627
Shiobara Kido	49,900	143,667	4,933	2,045	8	—	422	285	18,846	220,106
Mie Kido	—	129,744	5,480	250	978	—	143	34	3,860	140,489
Ryochiku Kido	—	288,943	4,953	6,966	—	—	699	111	—	301,672
Shonan Keiben	—	114,228	—	1,400	—	—	—	3,317	—	118,945
Kawakami Kido	11,000	82,469	129	58	13	45	8,049	106	—	101,869
Total	**1,539,700**	**4,679,608**	**71,399**	**71,385**	**30,519**	**8,869**	**99,291**	**6,428**	**199,413**	**6,706,612**
Petroleum Motor Tramway:—										
Chikugo Kido	**150,000**	**1,121,536**	**44,989**	**11,731**	**2,527**	**570**	**114,716**	—	—	**1,446,069**
Horse Tramways:—										
Akita Kido	—	37,059	—	—	—	—	1,450	61	118	38,688
Fuji-Minobu	—	106,400	—	—	—	—	—	—	—	106,400
Miharu Basha	—	33,521	3,118	—	—	—	5,980	24	—	42,643
Hakodate Suiden	—	97,499	1,801	339	121	—	—	765	—	100,525
Kanaishi Basha	12,000	22,061	—	—	—	—	2,503	694	2,542	39,800
Mitono Basha	—	76,336	—	—	—	—	149	300	25,056	101,841
Gotemba Basha	6,000	17,700	—	—	—	61	550	1,754	203	26,268
Kakuda Basha	—	66,863	—	638	—	—	3,594	47	100	71,242
Joto Basha	—	32,317	—	—	3,570	1,110	2,616	2,067	8,882	50,562
Tsuru Basha	—	23,961	557	—	—	50	330	40	—	24,938
Akiba Basha	—	67,047	—	4,092	—	—	6	166	2,858	74,169
Gyoda Basha	—	5,001	—	—	—	450	2,477	4,440	1,130	13,498
Iruma Basha	—	35,308	95	160	155	—	135	78	—	35,931
Chubu Basha	—	53,399	—	—	—	—	—	—	22,082	75,481
Fuji Basha	—	73,179	4,903	109	280	—	—	4,146	306	82,923
Nanchiku Kido	—	48,944	—	—	—	5,080	—	5,097	—	59,121
Saga Kido	—	53,106	766	48	234	—	1,218	232	9	55,613
Shokin Basha	10,000	47,242	—	—	—	—	275	301	511	58,329
Yutoku Kido	79,200	165,799	9,213	1,069	—	—	18,614	404	—	274,299
Iwaki Tanko	—	70,000	—	—	—	—	—	—	—	70,000
Kamikawa Basha	65,000	44,327	1,081	294	—	—	123	65	—	110,890

Name of Co. / Item	Share capital unpaid	Cost of construction	Stores in stock	Payment on suspense account	Amount receivable	Negotiable bonds	Deposits	Cash on hand	Miscellaneous	Total
	yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
Kokura Kido	—	21,391	—	182	—	—	600	3,354	—	25,527
Yamanashi Keiben	—	24,571	—	—	—	—	4,000	983	—	29,554
Waka Keiben	—	68,296	332	131	8,738	1,000	4	177	—	78,678
Akai Kido	15,000	85,574	—	—	376	—	11,037	257	—	112,244
Azumashokai	—	4,043	—	—	—	—	—	709	—	4,752
Tsuyazaki Kido	5,000	46,600	—	—	—	—	2,996	—	—	54,596
Nakoso Kido	50,000	50,547	—	205	310	—	3,050	—	—	104,112
Fuji Kido	32,000	112,178	—	4,016	5,412	—	—	852	—	154,458
Sapporo Shigai	120,000	92,779	3,594	7,161	1,382	825	1,681	606	193,841	421,869
Yamashiro Kido	—	35,317	—	—	—	—	250	732	173	36,472
Awazu Kido	8,429	23,123	—	—	—	—	230	216	326	32,324
Tone Kido	—	172,791	7,514	4,480	3,339	2,700	1,270	—	9,304	201,398
Sapporo Kido	—	77,562	—	392	1,087	—	5,055	131	—	84,227
Azuma Kido	37,500	171,313	5,775	11,602	1,173	1,875	1,942	444	—	231,624
Nippon Iwo	—	125,058	—	—	—	—	—	—	—	125,058
Total	**440,129**	**2,288,212**	**38,749**	**34,918**	**26,177**	**13,151**	**72,135**	**29,142**	**267,441**	**3,210,054**
Rikisha (man-drawn) tramways:—										
Utsunomiya Sekizai	4,913	175,641	10,507	22,235	37,532	—	69,260	9,667	32,335	362,090
Shimada Kido	—	19,219	—	—	19,404	1,397	418	1,559	385	42,382
Otome Jari	4,500	11,778	11,000	—	504	—	—	354	—	28,136
Iwafune Jinsha	—	31,174	—	—	714	—	—	—	396	32,284
Noda Jinsha	—	25,426	778	—	655	—	488	—	1,194	28,541
Kitsuregawa Jinsha	—	25,186	—	113	—	—	—	14	—	25,313
Nabeyama Jinsha	—	54,058	—	—	2,627	1,902	500	61	—	59,148
Ebetsu Jinsha (communal management)	—	8,895	—	—	—	—	—	—	2,444	11,339
Nasu Jinsha	110	26,502	146	776	89	—	741	737	771	29,872
Tokatsu Jinsha	—	79,349	—	—	263	—	198	—	169	79,979
Nakaizumi Kido	—	110,427	—	—	30,447	3,677	—	5,575	112,578	262,704
Chiba Jinsha (prefectural management)	—	82,867	—	—	—	—	—	525	15,769	99,161
Total	**9,523**	**650,522**	**22,431**	**23,124**	**92,235**	**6,976**	**71,605**	**18,492**	**166,041**	**1,060,949**

(b) Capital Liabilities.

Item / Name of Co.	Share capital	Debentures and loans	Legal reserves	Sepecial reserves	Securities	Receipts on suspense account	Amount payable	Amount of dividends payable	Brought over from last half-year's account	Profit for the latter half-year	Miscellaneous	Total
Electric Tramways:—	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
Kyoto Denki	5,250,000	500,000	176,500	9	5,608	11,918	15,373	2,797	14,987	36,197	1,967	6,015,356
Nagoya Denki	5,000,000	1,863,979	87,705	70,450	23,888	9,266	12,375	—	34,515	215,711	—	7,317,889
Keihin Denki	5,100,000	2,128,119	115,386	38,783	—	17,100	24,705	—	11,515	145,794	21,236	7,602,638
Odawara Denki	2,200,000	483,520	50,600	—	353	2,985	10,231	296	4,303	64,195	104,758	2,921,241
Bungo Denki	1,000,000	130,000	79,600	10,000	—	—	19,322	6	37,985	59,941	3,573	1,340,427
Yokohama Denki (formerly Enoshima)	476,500	—	—	—	—	687	471	444	—	32,653	179,121	689,876
Ise Denki	1,400,000	23,000	34,680	—	—	8,603	4,426	—	416	43,441	17,881	1,515,447
Tokyo Denki (municipal management)	89,344,183	3,930,927	—	—	—	—	—	—	—	400,188	388,556	94,063,854
Osaka Denki (municipal management)	29,620,740	—	—	716,526	285,131	34,873	187,347	—	72,172	—	—	30,916,789
Tosan Denki	1,000,000	676,400	29,226	50,295	—	2,700	63,117	1,041	10,350	61,046	—	1,894,175
Yokohama Denki	6,000,000	1,500,000	87,260	—	4,713	69,550	17,705	3,063	1,009	173,724	—	7,857,024
Sedo Denki	460,000	188,065	6,440	—	226	81,860	10,352	501	4,178	27,145	—	778,767
Hanshin Denki	7,000,000	2,450,000	271,000	605,805	—	76,900	6,147	2,424	70,967	382,603	68,540	10,934,386
Kawagoe Denki	300,000	—	13,800	1,200	125	19	4,672	—	1,914	12,316	—	334,046
Sunzu Denki	200,000	—	—	—	—	208	—	—	—	4,274	1,052	205,534
Iwamura Denki	150,000	45,000	3,114	13,000	—	54	—	71	804	7,039	—	219,082
Tamagawa Denki	1,000,000	378,576	7,800	—	2,393	4,957	—	715	8,480	18,389	1,900	1,423,210
Wakayama Suiryoku Denki	3,200,000	500,000	49,850	—	500	37,182	1,115	48	20,110	120,615	4,577	3,933,997
Iwakuni Denki	150,000	96,220	1,658	1,584	—	12	1,037	24	3,061	5,076	523	259,195
Kobe Denki	14,852,000	2,800,000	21,000	5,000	8,624	58,818	169,698	3,614	28,282	475,268	—	18,422,304
Hiroshima-Kure Denryoku	1,400,000	400,436	50,105	44,800	2,894	1,888	4,579	480	1,288	75,065	—	1,981,535
Ina Densha	1,500,000	148,700	8,665	13,016	9,158	1,333	11,706	1,056	16,991	31,001	4,692	1,746,318
Kyushu Dento	6,250,000	2,686,300	79,100	469,100	—	53,267	105,116	—	30,050	294,576	13,782	9,981,291
Kimen-Arima Denki	5,500,000	2,709,574	56,100	9,051	625	37,699	66,305	5,405	183,917	120,621	—	8,689,297
Hyogo Denki	2,000,000	235,000	6,300	47,000	6,281	835	1,802	3,711	453	25,247	2,898	2,329,527
Arashiyama Denki	1,000,000	522,000	6,000	—	400	2,428	30,127	—	11,191	21,680	960	1,594,786
Keihan Denki	10,500,000	1,390,000	96,000	—	7,971	260,477	15,544	—	37,200	351,881	28,870	12,687,943
Atsuta Denki	200,000	25,000	182	—	36	—	41,445	—	—	—	2,300	268,963
Nikko Denki	350,000	6,500	5,600	36,000	858	606	550	—	2,182	20,118	765	423,179
Takasaki Suiryoku Denki	1,500,000	145,000	47,869	42,291	380	1,107	—	101	2,694	90,960	32,144	1,862,546
Nankai	340,000	—	—	—	—	—	—	—	—	—	464,767	804,767
Tone Hatsuden	—	—	—	—	—	—	—	—	—	—	362,912	362,912
Seiso Denki	500,000	285,177	—	—	—	246	5,173	—	13,622	833	640	805,691
Mino Denki	1,000,000	424,000	10,000	—	—	3,400	—	31	2,191	30,121	2,290	1,472,033
Kyushu Denki	3,150,000	2,250,000	29,200	20,000	—	18,078	53,505	429	31,725	180,866	9,485	5,743,288
Oji Denki	1,000,000	668,673	2,110	2,110	2,195	2,425	13,828	241	—	2,839	19,635	1,714,056
Matsuyama Denki	600,000	413,906	11,829	29,172	1,543	1,007	13,111	182	558	1,101	—	1,072,409
Kyushu Suiryoku Denki	11,500,000	2,574,463	8,992	1,700	50,862	—	594,133	1,990	69,367	102,778	3,394	14,907,679
Hankai Denki	3,600,000	1,775,000	13,165	—	24,027	23,156	45,367	—	31,052	68,320	—	5,580,087
Owari Denki	1,000,000	101,870	60	—	704	—	—	—	5,395	683	7,726	1,116,438
Takamatsu Denki	300,000	50,000	550	—	259	—	232	114	98	5,449	—	356,702

(b) Capital Liabilities.—*Continued.*

Name of Co. / Item	Share capital	Debentures and loans	Legal reserves	Special reserves	Securities	Receipts on suspense account	Amount payable	Amount of dividends payable	Brought over from last half-year's account	Profit for the latter half-year	Miscellaneous	Total
	yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
Okayama Denki	1,000,000	41,242	1,800	1,000	570	856	878	565	244	9,676	—	1,056,831
Kyoto Denki (municipal management)	10,223,957	—	—	—	—	—	—	—	—	—	—	10,223,957
Keishin Denki	1,500,000	417,000	4,000	2,706	415	2,726	2,663	170	2,206	49,102	—	1,980,988
Okazaki Denki	150,000	3,000	3,480	—	110	307	858	—	114	7,274	—	165,143
Keisei Denki	1,500,000	885,000	3,599	3,599	1,694	1,337	389	622	3,998	32,735	855	2,433,828
Hiroshima Denki	3,000,000	—	4,260	—	2,377	2,807	—	1,884	2,363	39,352	—	3,053,043
Yamanaka Denki	50,000	80,500	2,700	—	—	80,000	63	—	—	—	1,300	214,563
Otsu Densha	500,000	160,793	—	—	775	3,904	1,747	—	6,376	3,057	397	677,029
Keio Denki	1,250,000	417,182	—	—	—	507	105,222	—	19,829	—	—	1,792,740
Mii Denki	1,000,000	60,547	—	—	—	—	6,163	—	5,109	2,934	298	1,075,051
Toyama Denki	230,000	—	233	140	159	—	2,016	—	8	221	2,191	234,968
Nagoya Tochi	2,000,000	235,097	2,000	—	—	7,809	127,901	—	182	—	300	2,373,289
Total	**249,297,380**	**36,805,766**	**1,489,518**	**2,234,337**	**445,834**	**925,897**	**1,798,516**	**32,025**	**895,451**	**3,854,105**	**1,739,285**	**299,428,114**
Steam Engine Tramways:—												
Dainippon Kido	3,000,000	676,313	37,200	—	11,829	74,412	13,854	2,474	15,973	68,313	—	3,900,368
Asakura Kido	400,000	30,000	5,911	10,242	1,765	—	—	—	3,160	16,439	—	467,517
Mio Kido	220,000	36,700	1,583	600	—	2,198	998	295	326	4,604	—	267,304
Yanagawa Kido	150,000	—	1,300	1,300	—	—	—	200	2,137	5,347	—	160,284
Kikuchi Kido	300,000	55,000	—	—	263	330	—	—	488	14,180	837	371,098
Seidaiji Kido	250,000	100,000	1,646	1,200	—	1,147	41	—	170	10,264	917	365,385
Dazaifu Kido	45,000	7,909	3,265	—	2,250	—	—	—	—	—	3,524	61,948
Kumamoto Kido	200,000	24,500	350	400	—	217	—	—	778	3,225	157	229,627
Shiobara Kido	150,000	68,900	—	250	—	70	886	—	—	—	—	220,106
Mie Kido	100,000	37,920	—	—	—	85	2,484	—	—	—	—	140,489
Ryochiku Kido	200,000	95,500	246	—	150	163	52	49	10	5,502	—	301,672
Shonan Keiben	55,000	60,596	596	—	—	—	—	—	13	2,740	—	118,945
Kawakami Kido	100,000	—	—	—	140	25	309	—	656	739	—	101,869
Total	**5,170,000**	**1,193,338**	**52,097**	**13,992**	**16,397**	**78,647**	**18,624**	**3,018**	**23,711**	**131,353**	**5,435**	**6,706,612**
Petroleum Motor Tramway:—												
Chikugo Kido	**1,000,000**	**294,750**	**82,800**	**22,004**	**757**	—	**6,129**	—	**7,460**	**32,169**	—	**1,446,069**
Horse Tramways:—												
Akita Kido	35,000	—	906	833	—	—	5	194	—	1,750	—	38,688
Fuji-Minobu	—	—	—	—	—	—	—	—	—	—	106,400	106,400
Miharu Basha	34,200	—	6,838	—	—	—	—	—	—	—	1,605	42,643

Hakodate Suiden	—	21,674	—	—	—	—	—	—	—	—	78,851	100,525
Kanaishi Basha	30,000	—	5,460	2,470	—	—	—	—	241	1,629	—	39,800
Mitono Basha	25,000	20,024	—	—	—	—	1,360	—	—	22	55,435	101,841
Gotemba Basha	20,000	4,000	250	—	—	100	—	93	—	248	1,577	26,268
Kakuda Basha	66,360	—	1,640	2,295	—	—	328	331	288	—	—	71,242
Joto Basha	30,000	11,102	1,505	200	—	—	1,659	16	279	1,413	4,388	50,562
Tsuru Basha	2,000	4,000	222	550	—	146	—	—	—	—	20	24,938
Akiba Basha	65,000	800	3,120	2,100	—	—	2,770	59	130	190	—	74,169
Gyoda Basha	9,000	—	520	2,210	15	—	—	—	771	982	—	13,498
Iruma Basha	30,000	1,500	300	—	—	—	174	232	1,454	2,039	232	35,931
Chubu Basha	28,000	27,301	—	—	—	16,795	3,385	—	—	—	—	75,481
Fuji Basha	70,000	—	6,120	236	—	—	—	—	6,422	145	—	82,923
Nanchiku Kido	50,000	—	6,500	—	—	—	—	—	718	1,903	—	59,121
Saga Kido	40,000	11,380	820	500	15	—	—	877	—	2,021	—	55,613
Shokin Basha	50,000	5,000	1,470	250	—	—	—	62	1	1,546	—	58,329
Yutoku Kido	240,000	—	8,834	—	—	—	17	704	12,503	8,205	4,036	274,299
Iwaki Tanko	—	—	—	—	—	—	—	—	—	—	70,000	70,000
Kamikawa Basha	100,000	4,981	610	700	195	2,448	—	—	470	752	734	110,890
Kokura Kido	20,000	—	2,321	—	45	—	—	—	66	3,095	—	25,527
Yamanashi Keiben	25,000	—	1,200	2,200	107	—	479	—	—	—	568	29,554
Waka Keiben	62,000	7,000	1,960	—	—	274	—	—	82	7,362	—	78,678
Akai Kido	100,000	—	2,850	—	—	278	47	—	2,938	5,694	437	112,244
Azumashokai	—	4,043	—	—	—	—	—	—	—	—	709	4,752
Tsuyazaki Kido	50,000	1,600	590	200	—	—	—	7	708	1,491	—	54,596
Nakoso Kido	100,000	—	500	500	—	—	—	—	38	3,074	—	104,112
Fuji Kido	100,000	50,300	900	900	—	—	1,210	—	1,134	14	—	154,458
Sapporo Shigai	300,000	114,625	2,320	2,320	293	551	720	—	265	—	775	421,869
Yamanaka Kido	25,000	10,000	170	—	—	—	—	—	1,302	—	—	36,472
Awazu Kido	18,500	13,250	—	—	—	—	574	—	—	—	—	32,324
Tone Kido	140,000	50,000	—	—	—	8,049	—	—	—	3,349	—	201,398
Sapporo Kido	50,000	27,000	270	540	50	100	382	—	590	4,939	356	84,227
Azuma Kido	150,000	68,470	165	—	402	25	10,580	—	—	1,982	—	231,624
Nippon Iwo	80,000	44,100	—	—	—	—	—	—	—	—	958	125,058
Total	**2,163,060**	**502,150**	**58,361**	**19,004**	**1,122**	**28,766**	**23,690**	**2,575**	**30,400**	**53,845**	**327,081**	**3,210,054**
Rikisha (man-drawn) Tramways:—												
Utsunomiya Sekizai	250,000	45,950	25,850	8,336	—	—	729	—	11,298	19,927	—	362,090
Shimada Kido	25,000	6,819	4,356	1,385	—	—	2,375	—	823	1,609	15	42,382
Otome Jari	28,000	—	—	—	—	—	—	—	55	81	—	28,136
Iwafune Jinsha	15,000	14,119	—	—	20	—	3,145	—	—	—	—	32,284
Noda Jinsha	22,500	700	4,300	—	—	—	232	—	581	228	—	28,541
Kitsuregawa Jinsha	20,000	5,299	—	—	—	—	—	—	—	14	—	25,313
Nabeyama Jinsha	50,000	—	1,944	1,205	—	—	1,367	77	1,972	583	2,000	59,148
Ebetsu Jinsha (communal management) ...	—	—	—	—	—	—	—	—	—	—	11,339	11,339
Nasu Jinsha	25,000	3,500	210	120	—	115	619	62	207	39	—	29,872
Tokatsu Jinsha	56,000	23,800	150	—	—	—	—	—	29	—	—	79,979
Nakaizumi Kido	110,000	130,332	1,700	1,600	—	—	—	—	—	—	19,072	262,704
Chiba (prefectural management)	—	83,000	—	—	—	—	—	—	—	—	16,161	99,161
Total	**601,500**	**313,519**	**38,510**	**12,646**	**20**	**115**	**8,467**	**139**	**14,965**	**22,481**	**48,587**	**1,060,949**

(3) ANALYSIS OF COST OF CONSTRUCTION.

Name of Co. / Item	Permanent way	Power cables	Rolling stock	Power stations, etc.	Land	Buildings	Work-shops	Cost of convey-ance	Tools, etc.	General expenses	Expenses of outside under-takings, etc.	Total	Cost of construc-tion per mile
Electric Tramways:—	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
Kyoto Denki	1,476,383	553,505	1,154,864	545,862	1,377,117	249,472	15,132	11,565	7,747	496,311	—	5,887,958	381,098
Nagoya Denki	1,032,969	349,592	649,086	354,308	154,923	86,280	6,631	—	33,779	48,071	2,716,864	5,432,503	156,702
Keihin Denki	1,415,534	572,277	716,975	736,638	918,935	239,560	—	3,417	—	765,930	619,279	5,988,545	355,581
Odawara Denki	288,395	373,492	142,224	330,740	85,121	58,993	—	8,014	—	52,537	657,584	1,997,100	176,252
Bungo Denki	93,820	249,207	86,857	305,184	14,739	56,429	3,669	—	2,245	—	168,960	981,110	114,387
Yokohama Denki (formerly Enoshima)	153,326	227,785	68,668	58,427	55,708	13,523	—	4,461	2,780	84,774	—	669,452	103,952
Ise Denki	342,116	68,100	158,676	108,892	92,980	27,120	—	—	3,767	75,986	303,312	1,180,949	98,170
Osaka Denki (municipal management)	6,372,145	1,055,734	3,051,918	1,950,734	14,981,578	713,797	—	—	183,851	88,601	339,740	28,738,098	980,076
Tokyo Denki (municipal management)	8,189,159	5,553,113	7,353,138	7,814,247	14,525,473	2,006,983	408,235	—	—	29,164,707	9,273,646	84,288,701	1,052,961
Tosa Denki	478,178	154,347	206,976	170,251	370,720	121,324	9,503	—	8,754	89,323	209,188	1,818,564	102,118
Yokohama Denki	1,478,129	224,951	443,509	172,009	1,456,302	210,488	—	38,864	—	292,764	509,954	4,826,970	396,420
Sedo Denki	292,762	58,808	154,989	105,083	82,796	41,014	450	—	8,850	9,790	—	754,541	55,440
Hanshin Denki	1,789,481	342,213	811,324	1,209,446	1,632,088	171,432	—	—	11,232	589,610	2,228,661	8,785,486	336,420
Kawagoe Denki	113,210	34,532	33,221	42,614	20,292	2,450	8,155	4,226	7,552	6,656	36,449	309,357	33,527
Sunzu Denki	100,823	28,632	42,907	11,753	8,641	5,076	2,633	—	1,136	—	—	201,601	48,462
Iwamura Denki	75,720	19,884	13,123	30,070	9,112	5,886	—	—	582	16,174	44,549	215,100	22,650
Tamagawa Denki	213,796	66,420	88,678	92,858	155,136	35,139	—	—	—	133,534	307,823	1,093,384	137,096
Wakayama Suiryoku	500,618	91,557	143,853	489,407	201,947	20,585	2,500	46	50,675	22,570	1,159,219	2,682,977	189,052
Iwakuni Denki	82,262	24,614	25,597	29,609	42,845	2,216	—	—	5,862	13,266	26,597	252,868	63,918
Kobe Denki	1,257,360	291,303	759,592	697,377	3,318,254	139,471	42,281	—	—	509,275	7,379,660	14,394,573	912,212
Hiroshima-Kure Denryoku	133,923	18,668	94,534	80,204	95,489	47,276	—	—	—	49,414	1,975,370	1,594,878	243,900
Ina Densha	206,224	69,512	45,483	70,266	80,204	20,827	—	9,047	7,200	47,035	259,841	816,269	50,710
Kyushu Dento	269,107	89,578	291,126	575,943	120,649	37,066	12,357	—	—	51,614	4,233,513	5,680,953	284,369
Kimen-Arima Denki	1,594,469	259,048	643,982	609,966	763,469	172,478	21,212	—	—	772,483	948,273	5,785,380	267,984
Hyogo Denki	473,025	99,340	252,622	139,502	557,033	124,862	14,426	—	5,138	189,252	111,971	1,967,171	325,474
Arashiyama Denki	280,833	56,467	126,475	71,573	182,578	30,770	—	3,512	4,089	101,765	657,409	1,515,471	190,257
Keihan Denki	3,965,565	822,235	928,707	1,344,876	1,677,393	420,584	37,861	146,446	24,608	1,103,525	807,523	11,279,323	309,359
Atsuta Denki	104,406	15,031	17,166	18,284	8,342	3,457	—	—	2,090	3,745	—	172,521	71,884
Nikko Denki	148,932	31,897	62,089	52,262	10,758	7,828	—	—	3,218	46,580	—	363,564	60,193
Takasaki Suiryoku Denki	235,742	89,736	87,560	20,026	36,745	32,375	—	10,699	2,060	527	719,539	1,235,009	25,443
Nankai	220,779	49,699	83,411	—	230,954	29,106	—	—	100	190,718	—	804,767	240,948
Tone Hatsuden	144,415	54,836	72,085	29,400	17,300	23,835	—	9,112	1,370	6,645	—	358,998	94,085
Seiso Denki	339,172	20,147	82,291	81,518	—	10,395	1,119	—	2,664	28,982	72,198	638,486	179,205
Mino Denki	335,256	117,793	163,341	46,038	261,610	12,902	15,122	—	4,795	24,421	93,401	1,074,679	54,154
Kyushu Denki	1,063,661	158,595	314,683	458,232	593,170	216,667	—	—	2,839	647,613	1,253,691	4,709,151	188,308
Oji Denki	237,641	56,239	137,915	210,102	229,530	38,987	—	5,720	8,466	150,971	542,840	1,618,411	210,896
Matsuyama Denki	282,488	88,522	83,114	241,094	106,025	22,849	—	17,860	—	58,439	114,442	1,014,833	145,459

Kyushu Suiryoku	276,512	39,152	138,198	295,680	527,919	21,366	8,969	—	—	135,730	4,510,755	5,954,281	338,855
Hankai Denki...	910,133	195,449	456,976	536,418	1,296,085	572,130	—	—	8,498	304,400	11,064	4,291,153	420,028
Owari Denki	277,858	19,193	60,291	14,021	—	18,875	178	—	4,164	31,639	247,511	673,730	109,850
Takamatsu Denki	129,259	26,776	46,627	44,434	65,116	7,135	—	—	3,920	27,560	—	350,827	28,068
Okayama Denki	68,397	14,768	52,847	58,900	338,702	9,565	—	1,285	—	96,623	2,688	643,775	451,469
Kyoto Denki (municipal management)	2,801,930	477,005	814,681	110,249	5,450,670	241,012	—	—	49,188	277,222	—	10,223,957	621,895
Keishin Denki...	677,051	130,428	128,428	193,837	509,988	83,545	—	12,703	2,595	200,600	—	1,939,175	287,285
Okazaki Denki	67,235	8,668	20,200	16,630	14,646	2,988	890	—	1,707	—	—	132,964	60,438
Keisei Denki	665,712	104,639	92,970	3,781	243,898	34,845	—	—	2,927	147,568	288,348	1,584,688	167,488
Hiroshima Denki	510,029	81,636	219,438	241,393	983,337	24,983	16,839	—	25,292	218,570	—	2,321,517	435,556
Yamanaka Denki	78,697	20,996	30,603	7,837	19,191	10,153	—	2,537	—	12,718	—	183,732	32,925
Otsu Densha	138,999	28,752	49,211	16,304	91,983	13,954	581	—	1,693	43,404	—	384,881	93,873
Keio Denki	177,067	80,386	41,762	11,140	79,200	23,335	—	—	5,858	279,327	96,009	794,084	82,808
Mii Denki	189,308	44,895	49,809	25,729	60,175	6,113	—	1,350	2,368	50,548	—	430,295	55,594
Toyama Denki	101,840	48,138	40,648	—	15,417	11,680	—	2,588	2,532	4,945	—	227,788	72,085
Nagoya Tochi	43,959	5,222	15,771	7,932	17,632	1,757	—	—	3,241	—	646,634	742,148	50,537
Total	**42,895,810**	**13,763,512**	**21,851,219**	**20,889,080**	**54,189,915**	**6,542,938**	**628,743**	**293,452**	**511,432**	**37,766,481**	**42,675,134**	**242,007,716**	**352,304**
Steam Engine Tramways:—													
Dainippon Kido, Odawara Branch ...	159,548	—	74,847	—	39,389	10,514	—	5,275	3,299	82,322	—	375,194	24,300
do. Kumamoto Branch...	164,041	—	106,568	—	77,857	16,763	—	8,001	4,062	78,574	—	455,866	30,990
do. Fukushima Branch...	169,970	—	65,438	—	24,536	9,540	—	9,366	3,933	52,932	—	335,715	16,955
do. Shizuoka Branch ...	117,137	—	62,653	—	82,994	13,635	—	3,070	4,628	55,041	—	339,158	44,451
do. Yamaguchi Branch...	71,312	—	554	—	36,956	10,824	—	2,732	2,469	31,131	—	155,978	—
do. Ise Branch	48,640	—	23,916	—	24,945	6,773	—	3,375	1,537	19,854	—	129,040	36,045
Asakura Kido...	188,615	—	86,972	—	9,947	13,100	—	—	6,505	—	—	305,139	18,076
Dainippon Kido, Hamamatsu Branch	126,407	—	69,815	—	107,491	13,816	—	6,468	3,266	60,501	—	387,764	25,494
Mio Kido...	141,701	—	44,966	—	—	7,188	—	—	—	14,965	—	208,820	18,949
Dainippon Kido, Hiroshima Branch...	150,577	—	46,553	—	74,814	8,431	—	3,921	2,953	62,731	—	349,980	41,223
Kyushu Suiryoku	160,201	—	53,535	—	13,733	7,527	3,465	—	—	124,739	—	363,200	28,198
Yanagawa Kido	48,040	—	23,299	—	—	4,069	—	—	—	10,794	—	86,202	20,000
Kikuchi Kido	142,696	—	57,606	—	54,247	53,284	—	—	4,484	—	—	312,317	19,102
Seidaiji Kido	227,082	—	46,669	—	10,563	26,198	—	2,338	3,274	27,004	—	343,128	54,465
Dazaifu Kido	29,727	—	23,627	—	—	3,946	—	—	456	275	—	58,031	30,704
Kumamoto Kido	36,878	—	22,969	—	7,392	—	—	1,778	1,277	7,931	—	78,225	19,556
Shiobara	74,546	—	38,179	—	517	8,300	—	3,828	—	18,297	—	143,667	22,103
Mie Kido...	93,027	—	20,332	—	—	5,207	—	—	—	11,178	—	129,744	40,545
Ryochiku Kido	190,211	—	32,971	—	57,979	3,884	—	—	1,898	2,000	—	288,943	30,224
Shonan Kido	55,654	—	33,488	—	4,126	3,769	372	1,106	885	14,828	—	114,228	19,900
Kawakami Kido	42,290	—	28,543	—	1,294	7,939	—	862	1,100	441	—	82,469	18,491
Total	**2,438,300**	—	**963,500**	—	**628,780**	**234,707**	**3,837**	**52,120**	**46,026**	**675,538**	—	**5,042,808**	**26,001**
Petroleum Motor Tramway:—													
Chikugo Kido...	**808,881**	—	**222,732**	—	—	**29,454**	—	—	**441**	**60,028**	—	**1,121,536**	**38,005**

(4) MOTIVE POWER AND ROLLING STOCK.

Name of Co.	Locomotives	Passenger Cars									Goods Wagons										
		No. of seats								Aggregate seating capacity	Covered					Open				Total No.	Aggregate loading capacity
											Loading capacity					Loading capacity					
		10–19	20–29	30–39	40–49	50–59	60–69	Others	Total		3-ton	4-ton	5-ton	Others	Total	3-ton	4-ton	5-ton	Others	Total	
Electric Tramways:—																					*ton*
Kyoto Denki	—	—	—	112	33	—	—	—	145	5,675	—	—	—	—	—	3	—	—	—	3	3	9
Nagoya Denki	—	—	37	130	—	—	—	—	167	5,382	—	—	—	—	—	—	—	—	—	—	—	—
Keihin Denki	—	—	—	—	34	—	—	40	74	4,750	—	—	—	—	—	—	—	—	—	—	—	—
Odawara Denki	—	—	—	9	16	—	—	—	25	1,073	4	—	—	—	4	—	7	—	1	8	12	80
Bungo Denki	—	—	—	—	—	18	—	—	18	1,700	2	—	—	—	2	—	3	—	—	3	5	15
Yokohama Denki (formerly Enoshima)	—	—	—	1	16	—	—	—	17	789	2	—	—	—	2	—	—	—	—	—	2	6
Ise Denki	—	—	—	29	—	—	—	2	31	1,304	—	—	2	—	2	—	—	2	—	2	4	20
Tokyo Denki (municipal management)	—	—	—	923	—	—	464	—	1,387	67,544	—	—	1	—	1	—	1	—	—	1	2	10
Osaka Denki (municipal management)	—	—	—	—	316	—	150	—	466	22,262	—	—	3	—	3	—	—	—	—	—	3	17
Tosa Denki	—	—	2	40	—	—	—	—	42	1,534	—	10	—	—	10	—	5	—	—	5	15	60
Yokohama Denki	—	—	—	—	91	—	—	—	91	3,640	—	—	—	—	—	—	—	—	—	—	—	—
Sedo Denki	3	—	2	20	—	—	—	—	22	786	—	—	—	—	—	—	—	4	20	24	24	160
Hanshin Denki	—	—	—	—	—	—	—	66	66	5,412	—	—	—	—	—	—	—	—	1	1	1	10
Kawagoe Denki	—	—	—	—	9	—	—	—	9	378	3	—	—	—	3	—	3	—	—	3	6	21
Sunzu Denki	—	—	—	7	—	—	—	—	7	238	2	—	—	—	2	2	—	—	—	2	4	12
Iwamura Denki	—	—	—	2	—	—	—	—	2	64	—	—	—	—	—	2	—	—	—	2	2	6
Tamagawa Denki	—	—	—	4	12	—	—	—	16	600	—	—	—	—	—	—	—	—	20	20	20	200
Wakayama Suiryoku	—	—	—	21	—	—	—	—	21	735	—	—	—	—	—	—	—	—	—	—	—	—
Iwakuni Denki	—	—	—	6	—	—	—	—	6	192	—	—	2	—	2	—	—	2	—	2	4	20
Kobe Denki	—	—	—	—	—	90	—	—	90	4,680	—	—	—	—	—	—	—	—	—	—	—	—
Hiroshima-Kure Denryoku	—	—	—	20	—	—	—	—	20	800	—	—	—	—	—	—	—	—	—	—	—	—
Ina Densha	—	—	—	8	—	—	—	—	8	296	8	—	—	1	9	8	—	—	—	8	17	64
Kyushu Dento	—	—	—	—	54	—	—	—	54	2,160	—	—	—	—	—	—	—	—	—	—	—	—
Kimen-Arima Denki	—	—	—	—	—	—	—	33	33	2,706	—	—	—	2	2	—	—	—	1	1	3	18
Hyogo Denki	—	—	—	—	—	—	9	12	21	1,626	—	—	—	—	—	—	—	—	—	—	—	—
Arashiyama Denki	—	—	—	—	—	20	—	—	20	1,000	—	—	—	—	—	—	—	—	—	—	—	—
Keihan Denki	—	—	—	—	—	—	—	59	59	4,956	—	—	—	7	7	—	—	—	—	—	7	49
Atsuta Denki	—	—	—	4	—	—	—	—	4	136	—	—	—	—	—	—	—	—	—	—	—	—
Nikko Denki	—	—	—	—	6	2	—	—	8	340	—	—	4	—	4	—	—	7	—	7	11	55
Takasaki Suiryoku	—	—	—	13	—	—	—	—	13	442	2	—	—	4	6	1	2	—	5	8	14	24
Nankai	—	—	—	—	20	—	—	—	20	840	—	—	—	—	—	—	—	—	—	—	—	—
Tone Hatsuden	—	—	—	9	—	—	—	—	9	306	—	—	—	—	—	—	2	2	—	4	4	14
Seiso Denki	—	—	—	—	16	—	—	—	16	640	—	—	—	—	—	—	—	—	—	—	—	—
Mino Denki	—	—	—	—	28	—	—	—	28	1,120	—	2	—	—	2	—	—	5	—	5	7	33
Kyushu Denki	—	—	—	—	—	—	34	—	34	2,244	—	—	—	—	—	—	—	—	—	—	—	—

Oji Denki...	—	—	—	—	21	—	—	—	21	840	—	—	—	—	—	—	—	—	—	—	—	—
Matsuyama	—	—	—	—	6	10	—	—	16	740	—	1	—	—	1	1	—	—	—	1	2	7
Kyushu Suiryoku	—	—	—	—	45	—	—	5	50	1,700	—	—	—	—	—	—	—	—	—	—	—	—
Hankai Denki...	—	—	—	—	—	—	52	—	52	3,224	—	—	—	3	3	—	—	—	2	2	5	32
Owari Denki	—	—	—	—	12	—	—	—	12	552	—	—	—	—	—	—	—	—	—	—	—	—
Takamatsu Denki	—	—	—	—	9	—	—	—	9	360	—	2	—	—	2	—	—	—	—	—	2	8
Okayama Denki	—	—	—	—	12	—	—	—	12	504	—	—	—	—	—	—	—	—	—	—	—	—
Kyoto Denki (municipal management)	—	—	—	—	—	167	—	2	169	8,016	—	—	—	—	—	—	—	—	—	—	—	—
Keishin Denki...	—	—	—	—	—	15	—	—	15	750	—	—	—	—	—	—	—	—	—	—	—	—
Okazaki Denki	—	—	—	4	—	—	—	—	4	136	—	—	—	—	—	—	—	—	—	—	—	—
Keisei Denki	—	—	—	—	1	—	—	5	6	490	—	—	—	—	—	—	—	—	—	—	—	—
Hiroshima Denki	—	—	—	—	50	—	—	—	50	2,300	—	—	—	—	—	—	—	—	—	—	—	—
Yamanaka Denki	—	—	2	3	—	—	—	—	5	180	1	—	—	—	1	2	—	—	—	2	3	9
Otsu Denki	—	—	—	—	10	—	—	—	10	420	—	—	—	—	—	—	—	—	—	—	—	—
Keio Denki	—	—	—	—	6	—	—	—	6	240	—	—	—	—	—	—	—	—	—	—	—	—
Miï Denki	—	—	—	—	8	—	—	—	8	320	2	—	—	—	2	—	—	—	—	—	2	6
Toyama Denki	—	—	—	8	—	—	—	—	8	288	—	—	—	—	—	—	—	—	—	—	—	—
Nagoya Tochi...	—	—	—	4	—	—	—	—	4	136	—	—	—	—	—	—	—	—	—	—	—	—
Total	**3**	—	**43**	**1,377**	**831**	**322**	**709**	**224**	**3,506**	**169,545**	**26**	**15**	**12**	**17**	**70**	**19**	**23**	**22**	**50**	**114**	**184**	**965**
Steam Engine Tramways:—																						
Dainippon Kido, Odawara Branch ...	7	8	6	—	—	—	—	—	14	367	—	2	—	—	2	1	—	—	—	1	3	10
do. Kumamoto Branch...	14	—	—	16	—	—	—	—	16	512	—	4	—	—	4	—	—	5	6	11	15	53
do. Fukushima Branch...	10	—	1	8	—	—	—	—	9	336	5	10	—	—	15	—	3	—	—	3	18	67
do. Shizuoka Branch ...	9	—	21	1	—	—	—	—	22	624	—	5	—	—	5	4	12	—	—	16	21	71
do. Ise Branch	4	—	—	5	—	—	—	—	5	200	—	1	—	—	1	1	1	—	—	2	3	11
Asakura Kido...	10	—	—	7	8	—	—	—	15	612	2	—	—	4	6	—	33	—	9	42	48	150
Dainippon Kido, Hamamatsu Branch	11	—	—	13	—	—	—	—	13	468	—	5	—	—	5	—	28	—	—	28	33	118
Mio Kido...	6	—	—	5	—	2	—	—	7	275	2	—	—	—	2	5	2	—	—	7	9	29
Dainippon Kido, Hiroshima Branch	—	3	—	10	—	—	—	—	13	422	—	1	—	—	1	—	6	—	—	6	7	28
Kyushu Suiryoku	12	—	—	—	—	9	—	—	9	450	1	8	—	—	9	—	20	—	—	20	29	115
Yanagawa Kido	—	—	1	—	5	—	—	—	6	253	2	—	—	—	2	3	—	—	—	3	5	15
Kikuchi Kido...	—	—	1	2	5	—	—	—	8	294	6	4	—	—	10	6	—	—	—	6	16	52
Seidaiji Kido	5	—	—	—	—	15	—	—	15	750	—	4	—	—	4	—	4	—	—	4	8	32
Dazaifu Kido	3	8	—	5	—	—	—	—	13	288	2	—	—	—	2	—	—	—	—	—	2	4
Kumamoto Kido	5	—	—	6	—	—	—	—	6	188	2	—	—	—	2	—	—	—	—	—	2	6
Shiobara Kido...	2	—	4	—	2	—	—	—	6	192	—	—	3	—	3	—	—	4	—	4	7	35
Mie Kido...	3	—	—	—	4	—	—	—	4	168	—	1	—	—	1	—	6	—	—	6	7	42
Ryochiku Kido	5	—	—	—	6	—	—	—	6	300	—	2	—	—	2	3	4	—	—	7	9	33
Shonan Keiben	5	—	—	3	—	—	—	—	3	93	6	—	—	—	6	—	2	—	—	2	8	22
Kawakami Kido	5	—	—	6	—	—	—	—	6	172	—	—	—	—	—	—	1	—	—	1	1	4
Total	**116**	**19**	**34**	**87**	**30**	**26**	—	—	**196**	**6,962**	**28**	**47**	**3**	**4**	**82**	**23**	**122**	**9**	**15**	**169**	**251**	**850**
Petroleum Motor Tramway:—																						
Chikugo Kido...	**55**	**3**	**22**	**5**	—	—	—	—	**30**	**957**	**2**	**20**	—	—	**22**	**22**	**18**	—	**43**	**83**	**105**	**310**

(5) WORKING OF PASSENGER CARS AND GOODS WAGONS.

Name of Co. / Item	Coaching Service					Goods Service				
	Average mileage worked	Average working days	Aggregate vehicle days	No. of trips	Vehicle mileage	Average mileage worked	Average working days	Aggregate vehicle days	No. of trips	Vehicle mileage
Electric Tramways:—										
Kyoto Denki	15.45	365	30,768	642,432	3,795,696	—	—	—	—	—
Nagoya Denki	16.84	355	26,863	630,986	3,548,296	—	—	—	—	—
Keihin Denki	15.10	365	11,145	458,403	1,981,238	—	—	—	—	—
Odawara Denki	7.60	365	6,109	54,008	422,569	7.60	365	2,616	3,484	26,990
Bungo Denki	7.10	365	4,350	65,396	457,772	7.10	365	726	1,232	8,634
Yokohama Denki (formerly Enoshima)	6.44	365	3,148	42,824	274,080	6.44	365	365	396	2,550
Ise Denki	8.94	365	5,487	110,696	504,072	.10	4	4	4	16
Tokyo Denki (municipal management)	74.53	355	330,556	3,676,692	42,384,442	—	—	—	—	—
Osaka Denki (municipal management)	24.71	334	115,407	1,756,669	12,950,393	—	—	—	—	—
Tosa Denki	15.76	365	10,714	88,786	1,396,431	15.76	365	4,892	13,662	57,034
Yokohama Denki	10.11	339	19,061	242,854	2,709,696	2.41	170	283	3,427	6,320
Sedo Denki	13.45	361	4,050	107,823	465,059	13.45	361	2,994	6,747	63,168
Hanshin Denki	19.49	365	19,495	210,150	3,479,946	—	—	—	—	—
Kawagoe Denki	8.14	365	1,460	20,440	163,520	8.14	365	1,460	10,220	81,760
Sunzu Denki	4.14	363	1,735	47,446	96,998	3.63	363	826	2,703	10,007
Iwamura Denki	7.53	365	730	5,440	41,064	7.49	363	730	3,797	28,663
Tamagawa Denki	5.73	365	3,616	49,625	384,024	5.73	365	6,448	6,648	62,955
(Tatsuno Denki)	2.93	122	734	10,334	95,080	2.93	122	656	2,671	24,573
Wakayama Denki	7.58	343	4,771	117,304	675,244	—	—	—	—	—
Iwakuni Denki	3.54	365	1,643	30,592	105,796	3.54	365	1,040	3,420	9,869
Kobe Denki	6.83	324	18,262	359,231	2,453,552	—	—	—	—	—
Hiroshima-Kure Denki	2.13	365	5,401	273,506	546,612	—	—	—	—	—
Ina Densha	10.96	365	1,671	15,331	168,120	10.93	364	3,677	13,026	130,832
Kyushu Dento	5.09	365	13,541	371,396	1,740,935	—	—	—	—	—
Kimen-Arima Denki	18.05	365	6,632	175,710	1,794,552	18.05	365	974	6,944	67,024
Hyogo Denki	4.99	320	2,878	114,284	571,237	—	—	—	—	—
Arashiyama Denki	4.51	365	2,882	80,225	339,830	—	—	—	—	—
Keihan Denki	33.03	356	12,621	194,703	3,211,890	18.37	203	1,171	9,702	122,613
Atsuta Denki	2.40	365	919	45,426	79,211	—	—	—	—	—
Nikko Denki	5.03	304	1,978	24,207	124,567	4.74	287	3,600	15,185	71,305
Takasaki Suiryoku	20.26	365	3,668	14,834	197,620	20.20	364	1,036	4,022	66,544
Nankai	3.31	362	3,532	162,703	515,358	—	—	—	—	—
Tone Hatsuden	9.10	364	2,048	16,384	143,002	9.00	360	1,224	5,442	43,257
Seiso Denki	3.16	365	2,089	109,647	148,997	—	—	—	—	—
Mino Denki	18.01	365	7,038	235,452	872,626	16.24	329	1,037	3,936	64,008
Kyushu Denki	18.35	365	7,623	155,868	1,482,378	—	—	—	—	—
Oji Denki	3.94	282	2,688	150,311	339,654	—	—	—	—	—

Matsuyama Denki	6.19	365	3,857	76,286	455,361	.24	14	19	132	177
Kyushu Suiryoku	4.26	365	7,502	250,124	1,008,317	1.53	365	733	10,516	17,940
Hankai Denki	10.19	365	8,416	211,020	1,651,978	7.31	262	811	8,142	55,636
Owari Denki	3.88	365	2,302	61,222	228,965	—	—	—	—	—
Takamatsu Denki	8.98	365	1,460	22,913	206,476	8.98	365	365	1,882	16,940
Okayama Denki	1.42	365	2,884	192,816	196,897	—	—	—	—	—
Kyoto Denki (municipal management)	15.98	355	40,076	581,803	4,672,231	—	—	—	—	—
Keihin Denki	6.75	365	3,613	72,725	484,317	—	—	—	—	—
Okazaki Denki	2.20	365	1,240	41,802	91,964	—	—	—	—	—
Keisei Denki	7.74	365	1,616	40,069	272,199	—	—	—	—	—
Hiroshima Denki	5.33	365	8,915	266,585	1,273,983	—	—	—	—	—
Yamanaka Denki	3.69	243	729	8,376	46,486	3.09	203	406	947	5,303
Otsu Densha	1.04	93	1,631	60,436	163,936	—	—	—	—	—
Keio Denki	4.93	213	920	16,532	128,976	—	—	—	—	—
Mii Denki	2.84	134	531	13,720	68,679	1.76	83	131	192	1,661
Toyama Denki	1.41	212	1,345	62,932	100,691	—	—	—	—	—
Nagoya Tochi	.23	45	110	2,259	4,247	—	—	—	—	—
Total	**531.32**	**343**	**784,460**	**12,849,738**	**101,717,260**	**204.76**	**291**	**38,424**	**138,480**	**1,045,780**
Steam Engine Tramways:—										
Dainippon Kido, Odawara Branch	15.44	365	1,460	5,428	85,160	15.44	365	365	1,084	16,992
do. Kumamoto Branch	14.71	365	3,102	17,337	175,565	13.22	365	2,190	2,555	33,777
do. Fukushima Branch	19.80	365	1,825	7,173	142,025	19.80	365	1,460	2,498	49,460
do. Shizuoka Branch	7.63	365	2,920	21,812	171,617	7.63	365	3,983	6,557	51,590
do. (Yamaguchi Branch)	2.44	111	644	4,662	4,261	2.44	111	189	245	1,968
do. Ise Branch	3.58	365	868	20,801	72,803	2.57	262	376	1,999	6,996
Asakura Kido	16.88	365	2,190	13,140	221,803	16.88	365	8,043	9,651	97,892
Dainippon Kido, Hamamatsu Branch	15.21	365	3,285	21,700	204,496	15.21	365	4,571	7,210	79,504
Mio Kido	8.24	273	1,829	8,952	72,633	6.98	231	3,285	4,015	28,025
Dainippon Kido, Hiroshima Branch	8.49	365	2,956	21,963	174,793	8.49	365	1,124	3,988	28,943
Kyushu Suiryoku	12.88	365	2,310	18,411	200,828	12.88	365	6,439	22,273	148,900
Yanagawa Kido	4.31	365	1,825	9,216	37,986	4.31	365	386	786	1,361
Kikuchi Kido	12.54	280	1,142	14,476	122,063	8.30	185	1,000	5,008	72,709
Seidaiji Kido	8.39	486	2,188	29,584	179,932	8.39	486	4,194	14,498	63,438
Dazaifu Kido	1.89	365	4,026	19,440	36,738	—	—	—	—	—
Kumamoto Kido	4.00	365	990	20,530	82,120	—	—	—	—	—
Shiobara Kido	6.50	365	730	3,650	23,725	6.50	365	365	730	4,745
Mie Kido	2.93	334	728	20,436	63,472	—	—	—	—	—
Ryochiku Kido	7.78	290	1,460	13,505	107,635	7.78	290	1,460	5,475	43,636
Shonan Keiben	5.74	365	756	8,032	44,738	5.61	357	1,620	4,688	26,722
Kawakami Kido	.91	74	332	3,280	13,390	.91	74	83	166	663
Total	**180.29**	**336**	**37,566**	**303,528**	**2,237,783**	**163.34**	**324**	**41,140**	**93,426**	**757,321**
Petroleum Motor Tramway:—										
Chikugo Kido	28.31	350	8,733	54,492	697,835	22.34	276	15,724	31,383	313,835

N.B.—The companies parenthesized were designated as light railway concern or discontinued during the year under review. The remark applies to the following.

(6) RESULTS OF COACHING AND GOODS WAGON TRAFFIC.

Name of Co. / Item	Coaching Traffic							Goods Traffic				
	Passengers		Parcels and luggage		Average No. of passengers per day	Average earnings per day	Average earnings per day per mile	Tonnage	Earnings	Average tonnage per day	Average earnings per day	Average earnings per day per mile
	No.	Earnings	Weight	Earnings								
Electric Tramways:—		*yen*	*kin*	*yen*		*yen*	*yen*	*ton*	*yen*	*ton*	*yen*	*yen*
Kyoto Denki	15,133,989	553,809	—	—	41,462	1,517	98.21	—	—	—	—	—
Nagoya Denki	15,224,245	612,930	—	—	42,885	1,727	99.71	—	—	—	—	—
Keihin Denki	9,726,838	740,318	—	—	26,649	2,023	134.31	—	—	—	—	—
Odawara Denki	731,107	115,219	36,684	1,701	2,003	320	42.15	16,982	6,802	46	19	2.45
Bungo Denki	967,505	78,835	35,763	1,264	2,651	219	30.90	2,880	902	8	2	.35
Yokohama Denki (formerly Enoshima)	722,858	67,611	—	—	1,980	185	28.76	1,084	231	3	1	.10
Ise Denki	818,961	86,687	8,000	162	2,244	238	26.62	569	265	142	66	3.84
Tokyo Denki (municipal management)	245,742,663	8,583,187	—	—	692,233	24,178	315.52	—	—	—	—	—
Osaka Denki (municipal management)	109,366,249	3,611,564	54,164	2,826	327,444	10,821	400.75	—	—	—	—	—
Tosa Denki	8,272,989	200,486	31,704	360	22,666	550	34.92	645,664	8,267	?	23	1.44
Yokohama Denki	15,385,465	543,704	—	—	45,385	1,628	147.34	11,541	3,465	68	20	3.94
Sedo Denki	967,331	97,210	12,095	1,305	2,679	272	20.07	40,911	25,789	113	71	5.25
Hanshin Denki	16,573,537	1,166,834	—	—	45,407	3,197	164.02	—	—	—	—	—
Kawagoe Denki	287,068	47,093	672	53	786	129	15.86	12,028	3,004	33	8	1.01
Sunzu Denki	434,228	26,315	4,736	147	1,196	73	17.51	1,414	1,333	4	4	1.01
Iwamura Denki	63,277	11,792	1,684	86	173	33	4.32	7,830	9,658	122	27	3.53
Tamagawa Denki	1,829,220	94,525	—	—	5,011	259	45.20	66,480	10,048	182	28	4.81
(Tatsuno Denki)	162,005	14,381	—	—	1,328	118	13.45	12,795	3,374	105	28	3.16
Wakayama Suiryoku	1,502,869	147,232	—	—	4,382	429	53.21	—	—	—	—	—
Iwakuni Denki	276,052	24,259	—	—	756	67	18.78	13,680	1,372	37	4	1.06
Kobe Denki	20,847,105	639,548	—	—	64,343	1,974	256.54	—	—	—	—	—
Hiroshima-Kure Denryoku	598,723	45,405	—	—	1,640	124	58.44	—	—	—	—	—
Ina Densha	310,417	66,892	—	—	850	183	16.72	32,563	29,321	90	81	7.35
Kyushu Dento	7,962,692	217,443	—	—	21,816	596	117.03	—	—	—	—	—
Kimen-Arima Denki	5,503,074	484,864	—	—	15,077	1,328	73.60	18,594	19,093	51	52	2.90
Hyogo Denki	2,418,097	140,588	—	—	7,557	439	77.20	—	—	—	—	—
Arashiyama Densha	1,081,493	66,596	—	—	2,963	182	40.46	—	—	—	—	—
Keihan Denki	12,868,411	1,122,423	—	—	36,147	3,153	93.10	?	1,437	?	70	2.14
Atsuta Denki	136,359	7,879	—	—	374	22	9.00	—	—	—	—	—
Nikko Denki	363,386	28,290	2,956	199	1,195	94	15.51	56,022	39,479	195	138	22.82
Takasaki Suiryoku	283,154	60,779	4,382	412	776	168	8.27	17,419	13,235	48	36	1.80
Nankai	2,991,604	81,952	—	—	8,264	226	67.84	—	—	—	—	—
Tone Hatsuden	310,069	50,239	—	—	852	138	15.12	?	11,130	—	31	3.39
Seiso Denki	503,393	34,202	—	—	1,379	94	29.66	—	—	—	—	—
Mino Denki	2,907,631	154,408	× 104,686	1,926	7,966	428	23.78	15,110	9,359	46	28	1.58
Kyushu Denki	5,445,652	335,023	—	—	14,920	918	50.02	—	—	—	—	—
Oji Denki	1,429,817	47,597	—	—	5,070	169	33.10	—	—	—	—	—
Matsuyama Denki	1,301,569	59,212	—	—	3,566	162	26.21	38	33	3	2	.38

Kyushu Suiryoku	2,488,828	62,044	—	—	6,819	170	39.90	62,628	9,687	172	27	17.36
Hankai Denki	8,133,662	387,320	—	—	22,284	1.061	104.15	24,647	16,478	94	63	6.18
Owari Denki	377,301	19,539	—	—	1,034	54	13.80	—	—	—	—	—
Takamatsu Denki	381,303	42,755	—	—	1,045	117	13.04	3,389	2,223	9	6	.68
Okayama Denki	1,218,119	43,690	—	—	3,337	120	84.34	—	—	—	—	—
Kyoto Denki (municipal management)	23,592,704	840,205	—	—	66,458	2,367	144.04	—	—	—	—	—
Keishin Denki	2,116,058	207,697	—	—	5,797	569	84.29	—	—	—	—	—
Okazaki Denki	449,632	32,770	—	—	1,232	90	40.81	—	—	—	—	—
Keisei Denki	749,281	62,060	—	—	2,053	170	21.97	—	—	—	—	—
Hiroshima Denki	5,347,689	176,062	—	—	14,651	482	90.52	—	—	—	—	—
Yamanaka Denki	107,509	20,353	—	—	442	84	15.10	1,078	733	5	4	.65
Otsu Densha	1,039,887	32,914	—	—	11,182	354	86.62	—	—	—	—	—
Keio Denki	174,620	16,165	—	—	820	76	8.99	—	—	—	—	—
Mii Denki	258,786	10,086	—	—	1,931	75	9.72	245	100	3	1	.16
Toyama Denki	500,619	32,579	—	—	2,361	154	63.26	—	—	—	—	—
Nagoya Tochi	44,726	1,103	—	—	994	25	13.13	—	—	—	—	—
Total	**558,431,796**	**22,454,673**	× **104,686 672**	**10,441**	**1,628,081**	**65,466**	**115.79**	**420,017**	**239,759**	?	**824**	**3.21**
Steam Engine Tramways:—												
Dainippon Kido, Odawara Branch	141,613	71,984	—	—	388	197	12.77	1,948	6,790	?	19	1.20
do. , Kumamoto „	701,188	63,097	6,567	457	1,921	174	11.84	9,812	7,745	27	21	1.61
do. , Fukushima „	245,054	28,428	—	—	671	78	3.93	14,915	7,832	41	21	1.08
do. , Shizuoka „	553.131	47,149	9,384	482	1,515	130	17.10	18,249	7,254	50	20	2.60
do. , (Yamaguchi „)	81,343	11,323	—	—	733	102	12.71	1,003	692	9	6	.78
do. , Ise „	346,918	21,680	—	—	950	59	16.60	1,320	647	5	2	.69
Asakura Kido	490,880	67,499	—	—	1,345	185	10.96	27,763	15,824	76	43	2.57
Dainippon Kido, Hamamatsu Branch	467,189	53,091	4,325	273	1,280	146	9.61	47,040	26,433	129	72	4.76
Mio Kido	127,618	17,512	—	—	467	64	5.82	8,672	5,825	37	25	2.28
Dainippon Kido, Hiroshima Branch	438,308	53,445	4,992	232	1,201	147	17.32	4,108	4,396	11	12	1.42
Kyushu Suiryoku	610,764	51,928	—	—	1,673	142	11.05	36,612	11,983	100	33	2.55
Yanagawa Kido	219,868	23,046	—	—	602	63	14.65	6,284	2,642	17	7	1.68
Kikuchi Kido	347,134	39,505	7,738	558	1,240	143	8.75	3,975	5,455	21	29	1.80
Seidaiji Kido	601,232	65,317	793	87	1,237	135	21.36	10,268	4,654	21	10	1.52
Dazaifu Kido	227,152	16,276	—	—	622	45	23.59	—	—	—	—	—
Kumamoto Kido	239,677	14,714	—	—	657	40	10.08	—	—	—	—	—
Shiobara Kido	61,145	13,064	—	—	168	36	5.51	525	1,056	1	3	.45
Mie Kido	198,724	8,965	—	—	544	25	8.39	—	—	—	—	—
Ryochiku Kido	151,660	16,342	—	—	523	56	5.75	1,375	588	5	2	.21
Shonan Keiben	79,426	11,594	—	—	218	32	5.53	11,669	9,695	32	27	4.73
Kawakami Kido	54,670	2,861	—	—	739	39	8.62	156	106	2	1	.32
Total	**6,384,694**	**698,820**	**16,677**	**6,649**	**19,002**	**2,100**	**10.72**	**205,694**	**119,617**	?	**369**	**2.01**
Petroleum Motor Tramway:—												
Chikugo Kido	**1,907,730**	**142,797**	—	—	**5,451**	**408**	**13.82**	**47,269**	**37,996**	**170**	**138**	**4.66**

Note:—Figures marked with the cross (×) denote traffic measured in *kwan*, one *kwan* being 8.28 pounds.

(7) REVENUE ACCOUNT.

Name of Co.	Earnings				Expenses								Percentage of profit to cost of construction
Item	Passenger	Goods	Miscellaneous	Total	Maintenance of way	Motive power	Traffic	General	Taxes and dues	Miscellaneous	Total	Balance (profit)	
Electric Tramways:—	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*%*
Kyoto Denki	553,809	—	11,316	565,125	122,751	98,171	157,025	80,168	51,127	—	509,242	55,883	.9
Nagoya Denki	612,930	—	20,335	633,265	50,391	53,557	121,407	36,567	41,680	—	303,602	329,663	12.1
Keihin Denki	740,318	—	88,148	828,466	43,175	184,367	66,279	69,512	59,050	70,000	492,383	336,083	6.3
Odawara Denki	115,219	6,802	5,243	127,264	33,933	6,173	17,735	26,823	19,101	—	103,765	23,499	1.8
Bungo Denki	78,835	902	1,224	80,961	11,829	13,907	14,099	11,346	17,353	3,427	71,961	9,000	1.1
Yokohama Denki	67,611	231	394	68,236	18,816	18,110	10,183	7,996	3,194	—	58,299	9,937	1.5
Ise Denki	86,687	265	439	87,391	14,598	10,360	5,979	11,951	13,265	—	56,153	31,238	3.6
Tokyo Denki (municipal management)	8,583,187	—	215,699	8,798,886	796,721	912,754	1,670,200	324,425	—	500,000	4,204,100	4,594,786	6.1
Osaka Denki (municipal management)	3,611,564	—	95,479	3,707,043	410,262	313,560	679,263	109,118	—	242,685	1,754,888	1,952,155	6.9
Tosa Denki	200,486	8,267	1,792	210,545	27,241	35,087	34,357	16,073	11,767	—	124,525	86,020	5.3
Yokohama Denki	543,704	3,465	18,095	565,264	51,647	46,830	106,145	137,282	56,488	—	398,392	166,872	3.9
Sedo Denki	97,210	25,789	3,397	126,396	7,742	12,031	17,006	16,469	8,083	2,580	63,911	62,485	8.3
Hanshin Denki	1,166,834	—	43,874	1,210,708	107,760	131,382	147,894	79,262	78,443	6,952	551,693	659,015	10.1
Kawagoe Denki	47,093	3,004	638	50,735	6,681	26,497	3,865	6,041	2,149	—	45,233	5,502	2.0
Sunzu Denki	26,315	1,333	46	27,694	6,230	2,676	5,558	164	1,777	—	16,405	11,289	5.6
Iwamura Denki	11,792	9,658	581	22,031	8,668	1,488	1,968	2,641	3,209	—	17,974	4,057	2.4
Tamagawa Denki	94,525	10,048	4,328	108,901	19,996	24,043	16,424	3,046	7,162	21,121	91,792	17,109	2.2
(Tatsuno Denki)	14,381	3,374	328	18,083	2,226	4,926	3,059	1,479	1,097	—	12,787	5,296	2.8
Wakayama Suiryoku	147,232	—	703	147,935	21,415	11,581	28,298	7,301	12,411	—	81,006	66,929	4.4
Iwakuni Denki	24,259	1,372	243	25,874	1,255	4,967	4,079	6,080	4,070	—	20,451	5,423	2.4
Kobe Denki	639,548	—	9,752	649,300	66,205	59,630	119,143	101,530	81,771	—	428,279	221,021	3.2
Hiroshima-Kure Denryoku	45,405	—	1,451	46,856	3,488	2,338	17,630	2,573	2,375	—	28,404	18,452	3.6
Ina Densha	66,892	29,321	1,031	97,244	13,137	5,928	7,343	7,810	8,459	—	42,674	54,570	9.8
Kyushu Dento	217,443	—	12,753	230,196	28,830	10,644	59,283	36,616	2,314	—	137,687	92,509	6.4
Kimen-Arima Denki	484,864	19,093	11,474	515,431	51,060	65,483	85,077	17,714	24,673	—	244,007	271,424	5.6
Hyogo Denki	140,588	—	4,426	145,014	12,216	38,620	30,071	16,001	306	—	97,214	47,800	2.6
Arashiyama Denki	66,596	—	248	66,844	16,286	7,725	11,970	53,120	1,424	—	90,525	23,681	2.8
Keihan Denki	1,122,423	14,378	33,604	1,170,405	113,654	207,883	172,605	64,701	51,032	—	609,875	560,530	5.3
Atsuta Denki	7,879	—	1,420	9,299	380	2,550	6,102	—	556	106	9,694	395	.2
Nikko Denki	28,290	39,479	300	68,069	10,581	1,936	7,430	12,559	3,710	—	36,216	31,853	8.8
Takasaki Suiryoku	60,779	13,235	1,417	75,431	11,171	516	7,262	26,843	2,242	—	47,534	27,897	5.4
Nankai	81,952	—	206,719	288,671	5,627	6,200	85,459	3,226	3,180	—	103,692	184,979	23.0
Tone Hatsuden	50,239	11,130	372	61,741	9,419	375	10,499	8,406	4,827	—	33,526	28,215	7.9
Seiso Denki	34,202	—	1,319	35,521	4,529	12,799	6,296	12,086	314	—	36,024	503	.1

Mino Denki	154,408	9,359	2,979	166,746	23,197	18,339	25,443	7,826	6,646	—	81,452	85,294	8.7
Kyushu Denki	335,023	—	18,739	353,762	56,164	39,522	47,515	12,517	12,187	—	167,905	185,857	5.4
Oji Denki	47,597	—	30	47,627	8,926	18,403	16,552	3,831	2,756	—	50,468	2,841	.3
Matsuyama Denki	59,212	33	704	59,949	12,136	4,532	18,032	9,265	2,111	1,065	47,141	12,808	1.4
Kyushu Suiryoku	62,044	9,687	1,524	73,255	8,115	3,739	24,958	10,601	640	—	48,053	25,202	1.7
Hankai Denki	387,320	16,478	156	403,954	45,598	49,171	61,846	20,434	18,092	28,288	223,429	180,525	4.2
Owari Denki	19,539	—	1,305	20,844	2,302	5,438	6,094	3,226	2,472	—	19,532	1,312	.3
Takamatsu Denki	42,755	2,223	1,280	46,258	7,210	9,094	6,451	8,763	776	—	32,294	13,964	4.0
Okayama Denki	43,690	—	4,739	48,429	673	10,756	7,521	2,179	4,876	—	26,005	22,424	3.5
Kyoto Denki (municipal management)	840,205	—	6,200	846,405	112,650	119,446	191,179	66,866	—	—	490,141	356,264	3.5
Keishin Denki	207,697	—	6,140	213,837	8,462	35,105	25,122	25,889	2,345	—	96,923	116,914	6.0
Okazaki Denki	32,770	—	170	32,940	3,264	5,179	3,459	3,113	1,516	—	16,531	16,409	12.3
Keisei Denki	62,060	—	16,566	78,626	6,339	21,983	9,128	7,575	1,789	8,340	55,154	23,472	1.8
Hiroshima Denki	176,062	—	4,182	180,244	15,485	25,838	40,009	15,359	2,914	—	99,605	80,639	3.6
Nakayama Denki	20,353	733	565	21,651	3,403	3,847	4,163	3,916	567	3,480	19,376	2,275	1.9
Otsu Densha	32,914	—	868	33,782	2,682	5,077	12,025	1,972	197	5,546	27,499	6,283	1.6
Keio Denki	16,165	—	1,348	17,513	13,765	6,633	7,678	9,185	925	4,261	42,447	24,934	5.7
Mii Denki	10,086	100	1,178	11,364	1,332	1,447	2,972	1,929	68	—	7,748	3,616	2.3
Toyama Denki	32,579	—	1,728	34,307	9,981	2,758	5,437	5,597	6,141	—	29,914	4,393	3.3
Nagoya Tochi	1,103	—	—	1,103	252	81	742	415	—	—	1,490	387	3.3
Total	**22,454,673**	**239,759**	**868,989**	**23,653,421**	**2,451,856**	**2,721,479**	**4,253,319**	**1,536,887**	**645,628**	**897,851**	**12,507,020**	**11,056,401**	**5.6**
Steam Engine Tramways:—													
Dainippon Kido	350,197	61,789	3,280	415,266	22,780	59,609	97,721	45,873	24,635	—	250,618	164,648	6.5
Asakura Kido	67,499	15,824	883	84,206	7,266	9,395	11,978	9,863	8,860	4,760	52,122	32,084	9.2
Mio Kido	17,512	5,825	1,935	25,272	3,622	2,252	6,185	3,034	1,816	—	16,909	8,363	4.0
Kyushu Suiryoku	51,928	11,983	1,341	65,252	8,107	6,914	12,705	4,597	—	—	32,323	32,929	9.1
Yanagawa Kido	23,046	2,642	619	26,307	5,339	2,311	3,849	3,356	40	—	14,895	11,412	13.2
Kikuchi Kido	39,505	5,455	3,886	48,846	6,623	7,967	13,111	7,290	342	—	35,333	13,513	4.3
Seidaiji Kido	65,317	4,654	2,103	72,074	2,402	5,538	11,096	14,096	1,828	—	34,960	37,114	8.1
Dazaifu Kido	16,276	—	36	16,312	2,661	1,438	2,275	2,748	763	—	9,885	6,427	11.1
Kumamoto Kido	14,714	—	357	15,071	419	2,461	4,629	1,041	395	—	8,945	6,126	7.8
Shiobara Kido	13,064	1,056	1,187	15,307	1,415	3,504	3,796	6,582	302	—	15,599	292	.2
Mie Kido	8,965	—	146	9,111	323	2,755	2,980	1,396	—	—	7,454	1,657	1.3
Ryochiku Kido	16,342	588	881	17,811	1,401	2,839	4,117	1,655	96	—	10,108	7,703	2.7
Shonan Keiben	11,594	9,695	268	21,557	287	974	5,651	5,351	1,232	—	13,495	8,062	7.1
Kawakami Kido	2,861	106	42	3,009	15	605	1,497	635	15	—	2,767	242	5.5
Total	**698,820**	**119,617**	**16,964**	**835,401**	**62,660**	**108,562**	**181,590**	**107,517**	**40,324**	**4,760**	**505,413**	**329,988**	**6.5**
Petroleum Motor Tramway:—													
Chikugo Kido	142,797	37,996	5,448	186,241	6,171	69,925	28,149	9,001	12,058	—	125,304	60,937	5.4

(7) REVENUE ACCOUNT.—*Continued.*

Name of Co. / Item	Miscellaneous Receipts			Miscellaneous Expenses			Net Profit	Brought over from last account	Profit disposed					
	Outside undertakings	Interest, charges, etc.	Total	Outside undertakings	Interest, charges, etc.	Total			Reserves	Bonus	Dividend		Others	Carried forward to next account
											Amount	Percentage		
Electric Tramways:—	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	%	*yen*	*yen*
Kyoto Denki	—	1,372	1,372	—	—	—	57,255	—	2,920	5,000	—	—	—	49,335
Nagoya Denki	217,646	—	217,646	137,733	—	137,733	409,576	32,924	21,000	14,200	361,000	10.0	9,383	36,917
Keihin Denki	155,512	20,302	175,814	102,421	128,811	231,232	280,665	11,644	29,100	14,050	235,875	6.0	—	14,284
Odawara Denki	140,113	—	140,113	43,910	—	43,910	119,702	5,576	5,990	4,400	108,238	pref. 10.0 / ordi. 7.0	—	6,650
Bungo Denki	173,732	—	173,732	36,289	25,388	61,677	121,055	28,401	7,000	6,027	90,000	2.0	—	46,429
Yokohama Denki (formerly Enoshima)	94,254	—	94,254	35,570	13,368	48,938	55,253	—	—	—	—	—	55,253	—
Ise Denki	98,770	—	98,770	46,206	—	46,206	83,802	530	18,600	3,000	60,637	1st term 5.0 / 2nd term 5.5	—	2,095
Tokyo Denki (municipal management)	189,474	74,043	1,263,517	897,658	4,612,492	5,510,150	348,153	352,035	—	—	—	—	300,000	400,188
Osaka Denki (municipal management)	92,114	—	92,114	55,969	—	55,969	1,988,300	6,998	33,126	—	—	—	1,890,000	72,172
Tosa Denki	142,823	—	142,823	89,407	30,239	119,646	109,197	10,326	20,756	8,735	75,000	7.5	—	15,032
Yokohama Denki	25,215	131,982	157,197	3,403	—	3,403	320,666	1,627	32,080	10,000	277,860	8.0	—	2,353
Sedo Denki	—	—	—	—	14,371	14,371	48,114	3,449	2,420	4,560	36,800	8.0	—	7,783
Hanshin Denki	243,576	9,568	253,144	60,133	63,714	123,847	788,312	57,258	40,000	40,000	702,000	13.0	—	63,570
Kawagoe Denki	29,033	790	29,823	10,902	—	10,902	24,423	2,307	3,600	1,600	19,800	6.6	—	1,730
Sunzu Denki	—	—	—	—	—	—	11,289	—	—	—	—	—	11,289	—
Iwamura Denki	14,254	2	14,256	1,620	2,963	4,583	13,730	643	4,815	815	7,500	5.0	—	1,243
Tamagawa Denki	65,386	—	65,386	50,622	—	50,622	31,873	8,136	4,300	3,100	22,640	1st pref. 9.0 / 2nd pref. 6.0	—	9,969
(Tatsuno Denki)	—	—	—	—	8,326	8,326	*loss* 3,030	125	—	—	—	—	—	*loss* 2,905
Wakayama Suiryoku	302,421	6,370	308,791	70,256	64,813	135,069	240,651	19,125	12,100	16,000	201,333	10.0	10,000	20,343
Iwakuni Denki	22,815	—	22,815	18,274	—	18,274	9,964	1,962	1,010	600	6,000	4.0	—	4,316
Kobe Denki	1,416,305	2,687	1,418,992	516,729	252,284	769,013	871,000	28,282	52,500	29,300	722,625	6.0	31,049	63,308
Hiroshima-Kure Denryoku	245,845	2,812	248,657	90,333	34,440	124,773	142,336	1,207	14,600	8,000	119,700	12.0	—	1,333
Ina Densha	—	1,648	1,648	—	—	—	56,218	34,787	5,624	2,000	49,800	8.0	—	33,581
Kyushu Dento	951,408	—	951,408	510,059	—	510,059	533,858	12,518	26,800	26,500	436,500	12.0	—	56,576
Kimen-Arima Denki	323,822	—	323,822	195,770	99,632	295,402	299,844	175,745	15,000	12,500	231,000	7.0	41,051	176,038
Hyogo Denki	—	460	460	—	2,336	2,336	45,924	36,576	2,400	—	79,600	8.0	—	500
Arashiyama Denki	91,533	2,599	94,132	33,378	—	33,378	37,073	16,374	2,200	2,000	38,576	4.0	—	10,671
Keihan Denki	185,823	64,203	250,026	21,391	64,413	85,804	724,752	36,580	37,000	20,000	682,500	6.5	4,000	17,832
Atsuta Denki	—	37	37	—	8,379	8,379	*loss* 8,737	*loss* 4,289	—	—	—	—	—	*loss* 13,026
Nikko Denki	—	442	442	—	—	—	32,295	3,825	6,400	1,750	20,410	8.0	—	7,560
Takasaki Suiryoku	185,946	3,129	189,075	62,661	—	62,661	154,311	2,071	16,570	13,500	115,958	12.0	—	10,354
Nankai	—	—	—	—	—	—	184,979	—	—	—	—	—	184,979	—
Tone Hatsuden	—	—	—	—	—	—	28,215	—	—	—	—	—	28,215	—
Seiso Denki	15,271	—	15,271	11,563	—	11,563	3,205	11,250	—	—	—	—	—	14,455
Mino Denki	—	894	894	—	21,521	21,521	64,667	3,505	6,000	5,000	51,860	1st term 8.0 / 2nd term 7.0	2,000	3,312
Kyushu Denki	388,691	—	388,691	134,808	101,542	236,350	338,198	27,142	7,000	16,800	275,975	" 11.0 / " 11.5	—	35,565

Oji Denki	127,637	—	127,637	131,818	—	131,818	*loss* 7,022	3,343	2,220	1,110	16,000	1st term	4.0	—	*loss* 23,009
Matsuyama Denki	16,895	3,689	20,584	3,302	23,948	27,250	6,142	6,618	1,300	—	9,800	1st term pref.	5.0	—	1,660
Kyushu Suiryoku	—	—	—	—	—	—	25,202	—	—	—	—		—	25,202	—
Hankai Denki	—	96,390	96,389	—	83,424	83,424	193,490	5,382	9,735	10,000	176,400		7.0	—	2,737
Owari Denki	354	85	439	329	—	329	1,422	4,656	—	—	—		—	—	6,078
Takamatsu Denki	—	—	—	—	800 2,983	3,783	10,181	115	650	510	9,000	1st term 2nd term	2.7 3.0	—	136
Okayama Denki	736	—	736	—	—	—	23,160	4,064	2,200	700	22,500		3.0	695	1,129
Kyoto Denki (municipal management)	—	—	—	—	—	—	356,264	—	—	—	—		—	356,264	—
Keishin Denki	7,607	541	8,148	—	29,060	29,060	96,002	329	4,900	5,100	85,024		—	—	1,307
Okazaki Denki	—	60	60	—	443	443	16,026	42	820	1,200	12,350		10.0	1,580	118
Keisei Denki	64,208	1,551	65,759	32,069	—	32,069	57,162	7,793	9,404	2,000	48,000		5.0	—	5,551
Hiroshima Denki	—	3,925	3,925	—	—	—	84,564	1,420	4,240	—	81,000		3.5	—	744
Yamanaka Denki	—	—	—	—	8,490	8,490	*loss* 6,665	1,088	—	—	—		—	—	*loss* 5,577
Otsu Densha	—	—	—	—	—	—	6,283	3,150	500	—	5,000	2nd term	4.0	—	3,933
Keio Denki	20,433	—	20,433	9,649	—	9,649	14,150	19,829	—	—	—		—	—	5,679
Miï Denki	—	—	—	—	—	—	3,616	4,425	150	—	—		—	—	7,891
Toyama Denki	—	4,834	4,834	—	—	—	9,227	—	549	232	6,026	1st term 2nd term	20.0 4.5	2,393	27
Nagoya Tochi	4,536	9,953	14,489	13,573	1,565	15,138	*loss* 1,036	631	—	—	—		—	—	*loss* 405
Total	**7,054,188**	**444,367**	**7,498,555**	**3,427,805**	**5,700,195**	**9,128,000**	**9,426,956**	**991,614**	**496,579**	**290,289**	**5,500,287**		—	**2,953,353**	**1,178,062**
Steam Engine Tramways:—															
Dainippon Kido	247,292	1,396	248,688	227,799	48,684	276,483	136,853	18,320	7,000	6,200	131,482		7.0	—	10,491
Asakura Kido	—	—	—	—	—	—	32,084	2,358	5,808	1,350	27,000		9.0	—	3,542
Mio Kido	—	—	—	—	—	—	8,363	581	419	168	7,906	pref. ordi.	7.0 4.0	—	451
Kyushu Suiryoku	—	—	—	—	—	—	32,929	—	—	—	—		—	32,929	—
Yanagawa Kido	—	—	—	—	—	—	11,412	2,071	1,500	500	8,100		10.0	1,000	2,383
Kikuchi Kido	—	667	667	—	—	—	14,180	488	1,000	520	12,000		5.4	—	1,148
Seidaiji Kido	—	82	82	—	11,125	11,125	26,071	396	2,363	1,170	22,500	1st term 2nd term	6.6 7.0	—	434
Dazaifu Kido	—	31	31	—	—	—	6,458	49	330	300	4,275		10.0	1,344	258
Kumamoto Kido	—	14	14	—	—	—	6,140	512	750	600	4,125	1st term 2nd term	8.0 8.5	—	1,177
Shiobara Kido	—	—	—	—	7,645	7,645	*loss* 7,937	*loss* 6,908	—	—	—		—	—	*loss* 14,845
Mie Kido	—	35	35	—	2,694	2,694	*loss* 1,002	10	—	—	—		—	—	*loss* 992
Ryochiku Kido	—	—	—	—	—	—	7,703	920	391	—	7,000	1st term 2nd term	3.0 4.0	—	1,232
Shonan Keiben	—	—	—	—	5,324	5,324	2,738	7	140	150	2,400	pref. ordi.	8.0 4.0	—	55
Kawakami Kido	—	496	496	—	—	—	738	656	—	—	—		—	441	953
Total	**247,292**	**2,721**	**250,013**	**227,799**	**75,472**	**303,271**	**276,730**	**22,718**	**19,701**	**10,958**	**226,788**		—	**35,714**	**6,287**
Petroleum Motor Tramway:—															
Chikugo Kido	—	**8,956**	**8,956**	—	**1,725**	**1,725**	**68,168**	**7,410**	**7,100**	**3,407**	**61,330**		**8.0**	**200**	**3,541**

REVENUE ACCOUNT.—*Continued.*

Name of Co. / Item	Expenses per 100 yen of earnings	Average per day			Average per mile			Average per day per mile		
		Earnings	Expenses	Profit	Earnings	Expenses	Profit	Earnings	Expenses	Profit
Electric Tramways:—	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
Kyoto Denki	89.89	1,552.05	1,395.18	156.87	100.22	90.31	9.91	.167	.151	.016
Nagoya Denki	51.87	2,331.26	1,209.14	1,122.12	103.02	49.39	53.63	.178	.085	.093
Keihin Denki	72.05	2,751.45	1,982.51	768.94	150.30	89.33	60.97	.418	.248	.170
Odawara Denki	55.23	732.54	404.59	327.95	45.88	37.41	8.47	.283	.231	.052
Bungo Denki	52.47	697.79	366.13	331.66	31.23	27.76	3.47	.174	.155	.019
Yokohama Denki (formerly Enoshima)	65.99	445.18	293.80	151.38	29.02	24.80	4.22	.247	.211	.036
Ise Denki	54.98	510.03	280.44	229.59	26.78	17.21	9.57	.173	.111	.062
Tokyo Denki (municipal management)	96.53	27,568.23	26,614.38	953.85	323.45	154.54	168.91	.208	.099	.109
Osaka Denki (municipal management)	47.66	10,408.65	4,961.25	5,447.40	411.03	194.58	216.45	.286	.136	.150
Tosa Denki	69.10	968.13	668.96	299.17	36.60	21.65	14.95	.145	.086	.059
Yokohama Denki	55.61	1,979.35	1,100.81	878.54	153.19	107.96	45.23	.208	.147	.061
Sedo Denki	61.93	346.29	214.47	131.82	25.75	13.02	12.73	.239	.121	.118
Hanshin Denki	46.15	4,010.55	1,850.79	2,159.76	170.19	77.55	92.64	.348	.159	.189
Kawagoe Denki	69.68	220.71	153.80	66.91	17.08	15.23	1.85	.206	.184	.022
Sunzu Denki	59.24	75.88	44.95	30.93	18.33	10.86	7.47	.259	.153	.106
Iwamura Denki	62.16	99.42	61.80	37.62	8.02	6.54	1.48	.316	.258	.058
Tamagawa Denki	81.71	477.50	390.18	87.32	52.08	43.90	8.18	.244	.206	.038
(Tatsuno Denki)	116.76	148.22	173.06	*loss* 24.84	16.91	11.96	4.95	.151	.107	.044
Wakayama Suiryoku	47.30	1,251.30	591.99	659.31	53.46	29.28	24.18	.219	.120	.099
Iwakuni Denki	79.54	133.39	106.09	27.30	20.02	15.83	4.19	.224	.177	.047
Kobe Denki	57.89	5,666.55	3,280.25	2,386.30	260.45	171.80	88.65	.265	.175	.090
Hiroshima-Kure Denryoku	51.83	809.62	419.66	389.96	60.30	36.56	23.74	.086	.052	.034
Ina Dento	43.15	270.94	116.92	154.02	24.31	10.67	13.64	.325	.143	.182
Kyushu Dento	54.82	3,237.27	1,774.65	1,462.62	123.90	74.10	49.80	.132	.079	.053
Kimen-Arima Denki	64.27	2,299.32	1,477.83	821.49	78.24	37.04	41.20	.277	.131	.146
Hyogo Denki	68.43	398.56	272.74	125.82	79.63	53.38	26.25	.253	.170	.083
Arashiyama Denki	76.97	441.03	339.46	101.57	40.61	54.99	*loss* 14.38	.197	.266	*loss* .069
Keihan Denki	48.98	3,891.59	1,905.97	1,985.62	97.08	50.59	46.49	.351	.183	.168
Atsuta Denki	193.58	25.58	49.52	*loss* 23.94	10.62	11.07	*loss* .45	.117	.122	*loss* .005
Nikko Denki	52.85	187.70	99.22	88.48	37.07	19.72	17.35	.348	.185	.163
Takasaki Suiryoku	41.66	724.67	301.90	422.77	10.20	6.43	3.77	.286	.180	.106
Nankai	35.92	790.88	284.09	506.79	238.97	85.84	153.13	.560	.201	.359
Tone Hatsuden	54.30	169.15	91.85	77.30	18.59	10.09	8.50	.331	.180	.151
Seiso Denki	93.69	139.16	130.38	8.78	30.80	31.24	*loss* .44	.238	.241	*loss* .003
Mino Denki	61.43	459.29	282.12	177.17	25.36	12.39	12.97	.178	.087	.091

Kyushu Denki...	54.45	2,034.12	1,107.55		926.57	52.81	25.07		27.74	.238	.113	.125
Oji Denki	104.01	480.17	499.41	*loss*	19.24	33.12	35.09	*loss*	1.97	.140	.149	*loss* .009
Matsuyama Denki	92.38	220.64	203.81		16.83	26.54	20.87		5.67	.131	.103	.028
Kyushu Suiryoku	65.60	200.70	131.65		69.05	47.11	30.90		16.21	.071	.046	.025
Hankai Denki	61.33	1,370.80	840.69		530.11	108.62	60.08		48.54	.237	.131	.106
Owari Denki	93.32	58.31	54.41		3.90	14.72	13.79		.93	.091	.085	.006
Takamatsu Denki	77.99	126.73	98.84		27.89	14.11	9.85		4.26	.207	.144	.063
Okayama Denki	52.89	134.70	71.25		63.45	93.49	50.20		43.29	.246	.132	.114
Kyoto Denki (municipal management) ...	57.91	2,318.92	1,342.85		976.07	145.11	84.03		61.08	.181	.105	.076
Keishin Denki...	56.75	608.18	345.16		263.02	86.79	39.34		47.45	.442	.200	.242
Okazaki Denki...	51.44	90.41	46.50		43.91	41.02	20.59		20.43	.358	.180	.178
Keisei Denki	60.41	395.58	238.97		156.61	27.83	19.52		8.31	.389	.203	.086
Hiroshima Denki	54.03	504.57	272.89		231.68	92.67	51.21		41.46	.141	.078	.063
Yamanaka Denki	130.78	89.10	116.53	*loss*	27.43	16.07	14.39		1.68	.318	.274	.044
Otsu Densha	81.40	92.55	75.34		17.21	86.13	72.56		16.57	.206	.168	.038
Keio Densha	137.29	164.98	226.50	*loss*	61.52	9.73	23.59	*loss*	13.86	.136	.329	*loss* .193
Miï Denki	68.18	84.80	57.82		26.98	10.96	7.47		3.49	.162	.110	.052
Toyama Denki...	76.43	184.63	141.10		43.53	66.62	58.09		8.53	.341	.297	.044
Nagoya Denki...	106.64	346.49	369.51	*loss*	23.02	13.13	17.74	*loss*	4.61	.260	.351	*loss* .091
Total	**69.65**	**64,557.32**	**34,265.81**		**30,291.51**	**121.50**	**64.49**		**57.01**	**.229**	**.122**	**.107**
Steam Engine Tramways:—												
Dainippon Kido	74.39	1,819.05	1,444.11		374.94	13.03	7.86		5.17	.319	.193	.126
Asakura Kido	61.90	230.70	142.80		87.90	13.67	8.46		5.21	.263	.163	.100
Mio Kido	66.91	69.24	46.33		22.91	8.40	5.62		2.78	.251	.168	.083
Kyushu Suiryoku	49.54	178.77	88.56		90.21	13.88	6.88		7.00	.187	.093	.094
Yanagawa Kido	56.62	72.07	40.81		31.26	16.72	9.47		7.25	.669	.379	.290
Kikuchi Kido	71.36	135.65	96.80		38.85	10.67	7.72		2.95	.251	.181	.070
Seidaiji Kido	63.87	148.47	94.83		53.64	23.54	11.42		12.12	.296	.144	.152
Dazaifu Kido	60.48	44.78	27.08		17.70	23.64	14.33		9.31	.444	.269	.175
Kumamoto Kido	59.30	41.33	24.51		16.82	10.32	6.13		4.19	.184	.109	.075
Shiobara Kido	151.85	41.94	63.68	*loss*	21.74	6.45	6.57	*loss*	.12	.538	.548	*loss* .010
Mie Kido	110.96	25.06	27.80	*loss*	2.74	8.52	6.97		1.55	.143	.118	.025
Ryochiku Kido	56.75	48.80	27.69		21.11	6.27	3.56		2.71	.118	.067	.051
Shonan Keiben	87.30	59.06	51.56		7.50	10.29	6.44		3.85	.302	.189	.113
Kawakami Kido	78.94	42.23	33.34		8.89	9.06	8.33		.73	.214	.197	.017
Total	**74.50**	**2,973.74**	**2,215.57**		**758.17**	**12.69**	**7.68**		**5.01**	**.279**	**.169**	**.110**
Petroleum Motor Tramway:—												
Chikugo Kido	**65.08**	**534.79**	**348.03**		**186.76**	**18.02**	**12.13**		**5.89**	**.184**	**.124**	**.060**

Name of Co. / Item	Accidents to Operation						Casualties by Accident									
							Killed					Injured				
	Collided	Derailed	Obstructed by human agency	Current stopped over 15 min.	Others	Total	Passengers	Servants	Passers-by	Others	Total	Passengers	Servants	Passers-by	Others	Total
Electric Tramways:—																
Kyoto Denki	72	104	—	26	494	696	—	—	1	—	1	78	10	152	—	240
Nagoya Denki	10	179	—	46	143	378	—	—	4	—	4	30	16	59	—	105
Keihin Denki	36	31	—	7	—	74	1	—	8	—	9	11	3	56	—	70
Odawara Denki	—	2	—	11	4	17	—	—	—	—	—	2	—	11	—	13
Bungo Denki	—	9	—	25	—	34	—	1	1	—	2	—	—	9	—	9
Yokohama Denki (formerly Enoshima)	1	1	—	4	—	6	—	1	—	—	1	1	—	1	—	2
Ise Denki	—	10	1	10	—	21	—	—	—	—	—	—	—	4	—	4
Osaka Denki (municipal management)	218	234	—	70	—	522	4	1	13	—	18	693	143	953	—	1,789
Tokyo Denki (municipal management)	231	315	—	32	—	578	4	—	10	—	14	909	—	1,274	—	2,183
Tosa Denki	—	15	14	16	4	49	—	—	3	—	3	8	1	27	—	36
Yokohama Denki	152	33	7	15	83	290	—	—	3	—	3	99	7	119	—	225
Sedo Denki	1	15	1	10	—	27	—	—	1	—	1	6	1	1	—	8
Hanshin Denki	1	3	141	2	—	147	—	—	10	—	10	21	2	78	—	101
Kawagoe Denki	1	9	—	—	—	10	—	—	—	—	—	4	2	—	—	6
Sunzu Denki	—	2	—	7	2	11	—	—	—	—	—	1	1	—	—	2
Iwamura Denki	1	3	—	14	12	30	—	—	—	—	—	—	—	—	—	—
Tamagawa Denki	9	6	—	—	—	15	—	—	1	—	1	—	—	7	—	7
(Tatsuno Denki)	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Wakayama Suiryoku	1	28	1	57	75	162	—	—	—	—	—	9	6	38	—	53
Iwakuni Denki	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kobe Denki	9	5	—	19	42	75	—	1	2	—	3	3	9	24	—	36
Hiroshima-Kure Denryoku	—	10	—	—	—	10	—	—	—	—	—	—	13	—	—	13
Ina Densha	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	4
Kyushu Dento	2	1	—	—	—	4	—	—	—	—	—	4	—	13	—	17
Kimen-Arima Denki	—	2	1	6	—	9	—	1	7	—	8	—	2	15	—	17
Hyogo Denki	—	2	1	2	—	4	—	—	—	—	—	2	—	8	—	10
Arashiyama Denki	—	1	—	4	—	5	—	—	—	—	—	—	—	—	—	—
Keihan Denki	3	8	—	2	—	13	—	2	9	—	11	7	11	44	—	62
Atsuta Denki	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Nikko Denki	2	7	—	—	—	9	—	—	—	—	—	1	—	4	—	5
Takasaki Suiryoku	1	3	—	1	—	5	—	—	—	—	—	—	—	8	—	8
Nankai	—	3	2	—	—	5	—	—	—	—	—	1	1	10	—	12
Tone Hatsuden	1	2	—	5	—	8	—	—	2	—	2	—	1	3	4	8
Seiso Denki	3	2	—	—	2	7	—	—	—	—	—	—	—	1	—	1
Mino Denki	2	33	4	2	102	143	—	—	2	—	2	6	12	44	—	62
Kyushu Denki	—	2	22	25	—	49	—	—	6	—	6	—	2	41	—	43
Oji Denki	1	—	—	—	—	1	—	—	—	—	—	—	—	5	—	5

Matsuyama Denki	1	6	1	3	—	11	—	—	—	—	—	—	—	3	—	3
Kyushu Suiryoku	1	10	—	8	—	19	—	—	—	—	—	—	—	5	—	5
Hankai Denki	2	5	5	4	—	16	—	—	2	—	2	10	2	30	—	42
Owari Denki	—	6	—	10	—	16	—	—	—	—	—	—	—	6	—	6
Takamatsu Denki	1	3	3	—	—	7	—	—	—	—	—	—	—	5	—	5
Okayama Denki	5	3	—	—	—	8	—	—	—	—	—	3	—	5	—	8
Kyoto Denki (municipal management)	97	42	—	—	—	139	—	—	1	—	1	157	—	103	—	260
Keishin Denki	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Okazaki Denki	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Keisei Denki	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hiroshima Denki	2	1	—	—	—	3	—	—	2	—	2	2	3	60	—	65
Yamanaka Denki	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Otsu Densha	—	3	—	60	—	63	—	—	—	—	—	—	—	—	—	—
Keio Denki	3	—	—	—	—	3	—	—	—	—	—	—	—	3	—	3
Miï Denki	4	7	5	18	—	34	—	—	1	—	1	—	—	1	—	1
Toyama Denki	3	10	—	—	—	13	—	—	—	—	—	—	—	7	—	7
Nagoya Tochi	1	6	—	—	—	7	—	—	—	—	—	—	—	—	—	—
Total	**878**	**1,182**	**209**	**521**	**963**	**3,753**	**9**	**7**	**89**	**—**	**105**	**2,068**	**248**	**3,238**	**8**	**5,562**
Steam Engine Tramways:—																
Dainippon Kido, Odawara Branch	1	2	—	—	2	5	—	—	—	—	—	1	1	1	—	3
do. Kumamoto Branch	—	—	—	—	—	—	—	—	—	—	—	—	3	2	—	5
do. Fukushima Branch	1	1	—	—	—	2	—	—	—	—	—	1	—	—	—	1
do. Shizuoka Branch	2	—	1	—	—	3	—	—	3	—	3	—	—	3	—	3
do. Yamaguchi Branch	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
do. Ise Branch	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	2
Asakura Kido	1	2	5	—	—	8	—	—	2	—	2	1	—	3	—	4
Dainippon Kido, (Hamamatsu Branch)	1	8	7	—	—	16	—	—	2	—	2	—	2	4	—	6
Mio Kido	—	10	5	—	—	15	—	—	—	—	—	1	—	—	—	1
Dainippon Kido, Hiroshima Branch	—	1	1	—	2	4	—	—	—	—	—	—	2	—	—	2
Kyushu Suiryoku	—	—	—	—	—	—	—	—	3	—	3	—	—	1	—	1
Yanagawa Kido	—	—	1	—	—	1	—	—	—	—	—	1	—	1	—	2
Kikuchi Kido	—	10	5	—	—	15	—	1	—	—	1	1	1	1	—	3
Seidaiji Kido	1	3	1	—	—	5	—	—	—	—	—	—	—	—	—	—
Dazaifu Kido	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kumamoto Kido	—	3	3	—	—	6	—	—	—	—	—	—	—	—	—	—
Shiobara Kido	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—	—
Mie Kido	—	3	8	—	—	11	—	—	—	—	—	—	—	—	—	—
Ryochiku Kido	—	5	—	—	—	5	—	—	—	—	—	—	—	2	—	2
Shonan Keiben	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kawakami Kido	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	2
Total	**7**	**48**	**37**	**—**	**4**	**96**	**—**	**1**	**11**	**—**	**12**	**6**	**10**	**21**	**—**	**37**
Petroleum Motor Tramway:—																
Chikugo Kido	**33**	**153**	**12**	**—**	**—**	**198**	**1**	**—**	**3**	**—**	**4**	**29**	**2**	**27**	**—**	**58**

(9) DIRECTORATE AND STAFF.

Name of Co. / Item	Directors		General Affairs		Construction and Maintenance of Way		Transportation		Accounts		Total	
	No.	Monthly salary and wages	No.	Monthly salary and wages	No.	Monthly salary and wages	No.	Monthly salary and wages	No.	Monthly salary and wages	No.	Monthly salary and wages
Electric Tramways:—		*yen*		*yen*		*yen*		*yen*		*yen*		*yen*
Nagoya Denki	9	467	20	513	154	2,557	478	7,419	32	576	693	11,532
Keihin Denki	9	505	12	263	183	3,442	285	3,811	25	450	514	8,471
Odawara Denki	9	475	20	564	129	2,825	58	971	—	—	216	4,835
Bungo Denki	8	300	18	351	111	1,658	61	762	—	—	198	3,071
Yokohama Denki (formerly Enoshima)	—	—	15	400	53	925	115	1,916	—	—	183	3,241
Ise Denki	8	106	20	395	61	1,091	53	445	—	—	142	2,037
Tokyo Denki (municipal management)	2	1,033	137	2,725	2,129	38,690	1,384	22,381	333	6,557	3,985	71,386
Osaka Denki (municipal management)	2	375	23	935	734	16,578	2,483	41,254	25	878	3,266	60,020
Tosa Denki	11	520	38	523	115	1,642	185	2,543	11	155	360	5,383
Yokohama Denki	9	300	7	248	135	3,247	515	7,179	11	264	677	11,238
Sedo Denki	6	67	10	172	34	425	129	1,610	—	—	179	2,274
Hanshin Denki	10	442	7	267	435	8,555	429	5,820	52	1,160	933	16,244
Kawagoe Denki	5	61	4	52	23	376	17	221	1	15	50	725
Sunzu Denki	—	—	—	—	11	162	21	262	—	—	32	424
Iwamura Denki	9	35	3	52	20	364	12	128	1	20	45	599
Tamagawa Denki	9	249	4	124	5	184	52	716	—	—	70	1,273
Wakawama Suiryoku	11	200	6	176	128	2,061	101	994	27	286	273	3,717
Iwakuni Denki	7	83	7	96	25	374	14	185	—	—	53	738
Kobe Denki	13	833	322	5,890	212	4,469	495	7,295	50	1,119	1,092	19,606
Hiroshima-Kure Denryoku	9	250	3	75	49	594	66	950	4	84	131	1,953
Ina Densha	7	167	9	202	77	1,445	37	424	—	—	130	2,238
Kyushu Dento	14	875	182	3,509	100	3,593	577	8,399	—	—	873	16,376
Kimen-Arima Denki	7	533	91	1,630	169	3,474	180	2,600	7	138	454	8,375
Hyogo Denki	5	—	13	365	58	1,262	69	978	—	—	145	2,605
Arashiyama Denki	5	245	9	305	51	985	38	537	—	—	103	2,072
Keihan Denki	9	925	93	1,735	249	4,914	443	6,953	36	662	830	15,189
Atsuta Denki	5	48	1	45	1	18	11	142	1	17	19	270
Nikko Denki	8	262	5	96	24	369	31	476	1	25	69	1,228
Takasaki Suiryoku	—	—	—	—	11	174	32	445	—	—	43	619
Nankai	—	—	—	—	11	162	72	1,210	—	—	83	1,372
Tone Hatsuden	—	—	—	—	20	288	32	398	—	—	52	686
Seiso Denki	6	150	7	101	25	391	26	307	—	—	64	949
Mino Denki	12	—	9	150	63	1,086	118	1,613	2	45	204	2,894
Kyushu Denki	10	225	115	2,636	30	1,161	161	2,123	—	—	316	6,145
Oji Denki	8	250	11	310	136	2,700	59	909	30	692	244	4,861
Matsuyama Denki	6	150	12	136	66	1,014	61	698	—	—	145	1,998
Kyushu Suiryoku	—	—	18	410	6	151	263	4,385	—	—	287	4,946

Hankai Denki	8	275	76	1,501	147	3,441	228	3,160	12	299	471	8,676
Owari Denki	4	42	5	100	10	165	22	308	—	—	41	615
Takamatsu Denki	8	—	2	47	26	472	35	372	5	76	76	967
Okayama Denki	8	—	3	113	12	227	46	517	4	61	73	918
Kyoto Denki (municipal management)	4	633	64	1,104	232	4,838	833	9,375	—	—	1,133	15,950
Keishin Denki	8	225	10	307	4	67	7	126	5	112	34	837
Okazaki Denki	4	62	1	22	10	162	19	222	—	—	34	468
Keisei Denki	8	48	8	308	49	1,245	99	1,773	—	—	164	3,374
Hiroshima Denki	10	—	5	297	80	1,739	184	2,711	3	90	282	4,837
Yamanaka Denki	7	—	2	45	18	356	46	704	1	25	74	1,130
Otsu Densha	6	158	2	43	—	—	8	180	3	43	19	424
Keio Denki	9	316	25	564	66	1,263	39	786	—	—	139	2,929
Mii Denki	10	125	4	118	4	177	51	686	—	—	69	1,106
Toyama Denki	8	71	2	64	23	398	32	366	3	42	68	941
Nagoya Tochi	8	225	4	61	11	214	9	131	2	47	34	678
Total	**364**	**12,678**	**1,496**	**30,893**	**6,784**	**132,574**	**11,279**	**168,358**	**687**	**13,938**	**20,610**	**358,441**
Steam Engine Tramways:—												
	19	350	2	88	2	98	1	60	3	86	27	682
Dainippon Kido, Odawara Branch	—	—	3	92	10	162	39	502	2	38	54	794
do. Kumamoto Branch	—	—	3	82	17	281	61	788	2	33	83	1,184
do. Fukushima Branch	—	—	2	80	18	354	41	434	2	31	63	899
do. Shizuoka Branch	—	—	3	43	11	210	41	467	1	25	56	745
do. Ise	—	—	2	70	7	98	22	265	1	12	32	445
Asakura Kido	7	76	6	95	19	301	70	801	—	—	102	1,273
Dainippon Kido, (Hamamatsu Branch)	—	—	4	93	14	214	55	635	1	18	74	960
Mio Kido	9	52	1	11	3	82	32	296	—	—	45	441
Dainippon Kido, Hiroshima Branch	—	—	3	82	10	194	47	517	1	14	61	807
Kyushu Suiryoku	—	—	—	—	—	—	—	—	—	—	—	—
Yanagawa Kido	7	33	1	17	1	25	16	206	—	—	25	281
Kikuchi Kido	8	130	2	32	17	272	70	877	3	50	100	1,361
Seidaiji Kido	8	145	1	50	—	—	45	510	2	40	56	745
Dazaifu Kido	6	—	2	20	—	—	18	159	—	—	26	179
Kumamoto Kido	6	—	—	—	6	114	23	256	1	14	36	384
Shiobara Kido	5	12	1	35	7	102	15	167	3	53	31	369
Mie Kido	7	—	3	72	—	—	17	250	—	—	27	322
Ryochiku Kido	10	—	2	30	1	24	24	272	—	—	37	326
Shonan Keiben	7	—	1	17	7	85	16	232	—	—	31	334
Kawakami Kido	10	58	1	25	1	35	24	226	1	25	37	369
Total	**109**	**856**	**43**	**1,034**	**151**	**2,651**	**677**	**7,920**	**23**	**439**	**1,003**	**12,900**
Petroleum Motor Tramway:—												
Chikugo Kido	**10**	**120**	**7**	**106**	**25**	**562**	**205**	**2,676**	—	—	**247**	**3,464**

(10) HORSE AND RIKISHA TRAMWAYS.

(a) Rolling Stock.

	Coaching		Goods Wagon	
	No.	Aggregate seating capacity	No.	Aggregate loading capacity
Horse Tramways:—				*ton*
Akita Kido	6	128	—	—
Fuji-Minobu	14	168	15	225
Miharu Basha	11	128	15	19
Hakodate Suiden	65	1,280	—	—
Kanaishi Basha	15	244	2	3
Mitono Basha	7	112	—	—
Gotemba Basha	28	323	24	36
Kakuda Basha	12	216	4	4
Joto Basha	12	112	8	8
Tsuru Basha	17	238	30	39
Akiba Basha	20	240	7	9
Gyoda Basha	5	90	2	3
Kyushu Dento	171	313	4	4
Iruma Basha	12	216	8	8
Chubu Basha	6	72	—	—
Fuji Basha	31	434	20	26
Nanchiku Kido	12	228	5	10
Saga Kido	15	240	6	12
Shokin Basha	12	180	—	—
Yutoku Kido	41	608	15	34
Iwaki Tanko	8	144	15	23
Kamikawa Basha	20	320	4	6
Kokura Kido	7	119	—	—
Yamanashi Keiben	31	434	1	1
Waka Keiben	6	44	35	53
Akai Kido	2	24	78	156
Azumashokai	4	56	10	15
Tsuyazaki Kido	9	144	2	4
Nakoso Kido	3	36	59	118
Fuji Kido	3	36	20	30
Sapporo Shigai	32	390	63	130
Yamashiro Kido	8	128	—	—
Awazu Kido	7	84	1	2
Tone Kido	20	200	50	78
Sapporo Kido	7	126	33	66
Azuma Kido	25	300	28	28
Nippon Iwo	3	36	23	69
Total	**553**	**8,191**	**587**	**1,219**
Rikisha (man-drawn) Tramways:—				
Utsunomiya Sekizai	45	320	150	225
Shimada Kido	—	—	20	60
Otome Jari	—	—	15	15
Iwafune Jinsha	—	—	26	26
Noda Jinsha	—	—	25	44
Kitsuregawa Jinsha	9	72	20	26
Nabeyama Jinsha	8	48	65	130
Ebetsu Jinsha (communal management)	—	—	—	—
Nasu Jinsha	14	100	15	15
Tokatsu Jinsha	6	48	54	54
Nakaizumi Kido	2	24	16	24
Chiba (prefectural management)	12	72	24	21
Total	**96**	**684**	**430**	**640**

HORSE AND RIKISHA TRAMWAYS.—*Continued.*

(b) Results of Coaching and Goods Traffic.

Name of Co. / Item	Coaching Service		Goods Service		Passengers carried		Parcels and luggage earnings	Goods earnings
	Average mileage worked	Vehicle mileage	Average mileage worked	Vehicle mileage	No.	Earnings		
Horse Tramways:—	*mile*	*mile*	*mile*	*mile*		*yen*	*yen*	*yen*
Akita Kido	3.19	51,353	—	—	133,360	13,336	49	—
Fuji-Minobu	7.32	82,920	2.13	242,484	217,086	20,525	—	25,552
Miharu Basha	8.21	53,545	8.21	33,361	67,274	16,311	—	5,440
Hakodate Suiden	9.10	620,825	—	—	3,599,440	105,374	131	—
Kanaishi Basha	3.10	56,463	—	—	181,454	11,700	—	—
Mitono Basha	9.33	65,535	—	—	121,612	8,164	53	—
Gotemba Basha	10.70	77,900	10.70	81,507	78,015	12,332	—	1,500
Kakuda Basha	11.87	48,825	11.87	10,528	53,626	8,748	351	560
Joto Basha	5.81	57,405	5.49	18,815	88,780	10,295	20	2,270
Tsuru Basha	12.90	11,238	12.90	51,862	56,353	12,310	—	3,697
Akiba Basha	8.19	92,802	6.57	19,804	151,132	20,110	106	689
Gyoda Basha	3.34	32,266	3.34	2,482	79,568	7,687	—	424
Furukawa Basha	1.94	14,254	1.94	5,654	21,903	4,238	27	384
Kyushu Dento	3.69	88,253	—	—	196,181	12,011	—	—
Iruma Basha	6.30	82,228	.74	365	94,675	12,325	431	61
Chubu Basha	9.69	49,494	—	—	39,065	5,577	—	—
Fuji Basha	10.20	204,400	—	—	253,078	35,428	—	—
Nanchiku Kido	6.43	92,591	6.43	17,804	254,493	20,749	—	769
Saga Kido	5.50	120,450	2.26	3,300	315,141	19,301	37	327
Shokin Basha	5.34	78,538	—	—	178,589	14,526	—	—
Yutoku Kido	15.14	288,012	13.00	54,750	474,204	52,267	—	4,807
Iwaki Tanko	6.04	62,971	6.04	20,889	85,254	7,757	—	2,639
Kamikawa Basha	5.14	197,057	—	—	422,896	25,390	—	—
Kokura Kido	2.23	68,065	—	—	294,304	14,118	—	—
Yamanashi Keiben	15.75	262,800	—	—	399,947	44,938	—	—
Waka Keiben	12.50	32,377	12.50	156,825	21,019	4,755	—	22,221
Akai Kido	3.60	7,884	3.49	397,612	10,332	627	—	27,827
Azumashokai	3.32	21,293	3.11	14,030	59,160	3,583	—	484
Tsuyazaki Kido	2.91	40,203	1.46	2,384	12,200	7,289	—	314
Nakoso Kido	3.74	8,191	3.69	105,984	26,100	1,301	—	19,966
Fuji Kido	7.39	12,119	7.19	55,829	14,600	2,920	—	13,506
Sapporo Shigai	12.80	184,908	12.80	63,120	409,619	22,756	—	3,190
Yamashiro Kido	2.66	33,046	—	—	85,887	8,640	—	—
Awazu Kido	2.05	19,195	—	—	63,854	5,612	—	—
Tone Kido	13.24	114,234	13.13	81,068	75,722	27,405	—	15,515
Sapporo Kido	4.60	39,301	4.60	50,294	56,467	8,566	—	15,014
Azuma Kido	11.21	104,219	11.21	46,417	510,140	20,773	261	4,507
Nippon Iwo	6.32	4,110	6.25	31,264	9,850	2,100	—	19,222
Total	**272.79**	**3,481,270**	**171.05**	**1,568,432**	**9,212,380**	**631,844**	**1,466**	**190,885**
Rikisha (man-drawn) Tramways:—								
Utsunomiya Sekizai	9.71	223,781	12.24	1,164,423	138,231	12,610	—	81,835
Shimada Kido	—	—	1.76	25,633	—	—	—	9,760
Otome Jari	—	—	1.00	12,600	—	—	—	—
Iwafune Jinsha	—	—	4.46	7,440	—	—	—	2,121
Noda Jinsha	—	—	3.82	75,000	—	—	—	12,577
Kitsuregawa Jinsha	5.13	29,784	5.13	27,922	21,559	2,909	—	1,215
Nabeyama Jinsha	7.15	39,146	7.88	473,760	20,140	2,164	—	29,100
Ebetsu Jinsha (communal management)	—	—	.41	267	—	—	—	493
Nasu Jinsha	3.46	27,869	3.46	17,458	49,651	3,141	—	999
Tokatsu Jinsha	6.23	28,503	6.23	47,114	18,004	2,045	—	6,253
Nakaizumi Kido	3.54	12,921	4.10	89,544	10,771	823	—	11,497
Chiba (prefectural management)	9.65	51,669	9.65	17,672	34,818	5,388	—	1,294
Total	**44.87**	**413,673**	**60.14**	**1,958,832**	**293,174**	**29,080**	—	**157,144**

HORSE AND

(c) Revenue

Item / Name of Co.	Receipts				Expenses		
	Passenger	Goods	Miscellaneous	Total	Maintenance	Traffic	General
Horse Tramways:—	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
Akita Kido	13,336	—	303	13,639	580	1,036	8,310
Fuji-Minobu	20,525	25,552	1,017	47,094	4,307	37,762	1,489
Miharu Basha	16,311	5,440	1,020	22,771	4,375	12,844	2,513
Hakodate Suiden	105,374	—	1,774	107,148	5,881	77,020	1,095
Kanaishi Basha	11,700	—	277	11,977	548	4,350	2,131
Mitono Basha	8,164	—	300	8,464	963	4,471	413
Gotemba Basha	12,332	1,500	120	13,952	1,608	8,976	1,505
Kakuda Basha	8,748	560	505	9,813	994	5,443	2,113
Joto Basha	10,295	2,270	220	12,785	1,054	7,864	1,118
Tsuru Basha	12,310	3,697	612	16,619	2,978	8,462	2,567
Akiba Basha	20,110	689	946	21,745	1,468	9,308	1,974
Gyoda Basha	7,687	424	78	8,189	654	6,194	—
Furukawa Basha	4,238	384	128	4,750	358	1,318	770
Iruma Basha	12,325	61	1,324	13,710	1,596	8,126	1,059
Chubu Basha	5,577	—	189	5,766	918	4,563	554
Fuji Basha	35,428	—	5,943	41,371	5,256	14,859	9,101
Nanchiku Kido	20,749	769	242	21,760	5,898	9,030	2,570
Saga Kido	19,301	327	852	20,480	1,709	10,354	2,315
Shokin Basha	14,526	—	65	14,591	1,353	8,050	694
Yutoku Kido	52,267	4,807	1,532	58,606	8,612	17,414	15,711
Iwaki Tanko	7,757	2,639	—	10,396	1,612	6,178	—
Kamikawa Basha	25,390	—	737	26,127	2,436	19,642	1,923
Kokura Kido	14,118	—	44	14,162	1,217	5,577	1,769
Yamanashi Keiben	44,938	—	1,381	46,319	10,596	16,435	14,241
Waka Keiben	4,755	22,221	580	27,556	2,678	11,701	1,667
Akai Kido	627	27,827	3,525	31,979	5,613	16,942	2,919
Azumashokai	3,583	484	20	4,087	190	1,593	693
Tsuyazaki Kido	7,289	314	265	7,868	—	5,475	1,008
Nakoso Kido	1,301	19,966	335	21,602	1,424	11,835	2,180
Fuji Kido	2,920	13,506	1,279	17,705	770	8,930	3,326
Sapporo Shigai	22,756	3,190	8,074	34,020	3,264	33,853	2,046
Yamashiro Kido	8,640	—	27	8,667	3	6,037	15
Awazu Kido	5,612	—	77	5,689	483	3,927	1,610
Tone Kido	27,405	15,515	4,339	47,259	1,729	30,586	3,805
Sapporo Kido	8,566	15,014	316	23,896	1,619	13,791	3,793
Azuma Kido	20,773	4,507	1,619	26,899	1,358	14,662	6,420
Nippon Iwo	2,100	19,222	42	21,364	1,842	8,739	2,551
Total	**619,833**	**190,885**	**40,107**	**850,825**	**87,944**	**473,347**	**107,968**
Rikisha (man-drawn) Tramways:—							
Utsunomiya Sekizai	12,610	81,835	525	94,970	6,035	34,257	21,926
Shimada Kido	—	9,760	17	9,777	993	4,496	—
Otome Jari	—	—	9,210	9,210	580	2,861	5,108
Iwafune Jinsha	—	2,121	—	2,121	165	1,320	554
Noda Jinsha	—	12,577	1,701	14,278	1,215	8,869	2,074
Kitsuregawa Jinsha	2,909	1,215	37	4,161	968	833	2,091
Nabeyama Jinsha	2,164	29,100	373	31,637	3,327	20,619	2,771
Ebetsu Jinsha (communal management)	—	493	—	493	50	—	—
Nasu Jinsha	3,141	999	40	4,180	164	4,469	256
Tokatsu Jinsha	2,045	6,253	406	8,704	786	5,336	2,395
Nakaizumi Kido	823	11,497	—	12,320	380	3,265	1,025
Chiba (prefectural management)	5,388	1,294	30	6,712	1,295	7,540	479
Total	**29,080**	**157,144**	**12,339**	**198,563**	**15,958**	**93,865**	**38,679**

RIKISHA TRAMWAYS.—*Continued.*

Account.

Taxes & dues	Miscellaneous	Total	Profit	Miscellaneous Receipts	Miscellaneous Disbursements	Net profit	Brought over from last account	Expenses per 100 yen of receipts	Average per day per mile: Receipts	Expenses	Profit
yen	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*	*yen*
808	—	10,734	2,905	95	—	3,000	—	78.16	11.72	9.22	2.50
1,200	—	44,758	2,336	—	—	2,336	—	95.04	17.63	16.75	.88
659	—	20,391	2,380	229	—	2,609	113	88.66	7.60	6.80	.80
1,357	—	85,353	21,795	—	—	21,795	—	79.66	32.25	25.69	6.56
1,077	—	8,106	3,871	42	863	3,050	496	10.58	10.58	7.16	3.42
456	—	6,303	2,161	—	1,593	568	*loss* 111	93.29	2.49	1.85	.64
348	—	12,437	1,515	62	—	1,577	249	88.74	3.57	3.18	.39
767	—	9,317	496	210	—	706	60	92.95	2.26	2.15	.11
638	—	10,674	2,111	8,084	6,896	3,299	80	84.19	6.03	5.03	1.00
358	—	14,365	2,254	—	—	2,254	467	86.46	3.53	3.05	.48
1,064	—	13,814	7,931	51	283	7,699	91	64.68	7.28	4.62	2.66
371	—	7,219	970	5,805	4,707	2,068	643	85.22	6.72	5.92	.80
742	—	3,188	1,562	187	—	1,749	166	64.57	6.71	4.50	2.21
657	282	11,720	1,990	138	90	2,038	1,454	85.28	5.96	5.10	.86
439	—	6,474	*loss* 708	2,473	2,632	*loss* 867	—	110.52	1.63	1.83	*loss* .20
2,092	—	31,308	10,063	—	—	10,063	555	75.68	11.11	8.41	2.70
913	—	18,411	3,349	523	—	3,872	1,769	82.62	9.27	7.84	1.43
600	—	14,978	5,502	—	1,145	4,357	220	78.73	10.19	7.45	2.74
989	—	11,086	3,505	—	517	2,988	559	79.52	7.49	5.69	1.80
3,029	—	44,766	13,840	889	—	14,729	12,504	75.24	10.61	8.10	2.51
—	—	7,790	2,606	—	—	2,606	—	74.93	4.71	3.53	1.18
463	—	24,464	1,663	—	911	752	470	93.67	13.93	13.04	.89
433	—	8,996	5,166	67	—	5,233	18	63.22	17.39	11.05	6.34
715	—	41,987	4,332	—	—	4,332	409	90.65	8.06	7.30	.76
1,131	3,069	20,246	7,310	52	—	7,362	82	73.33	6.04	4.44	1.60
426	—	25,900	6,079	278	—	6,357	2,275	80.29	24.33	19.71	4.62
57	—	2,533	1,554	—	—	1,554	—	61.97	3.37	2.09	1.28
423	—	6,906	962	1,281	—	2,243	—	75.48	7.40	6.50	.90
493	—	15,932	5,670	62	—	5,732	166	73.54	15.82	11.67	4.15
1,163	—	14,189	3,516	—	3,454	62	1,285	99.65	6.57	5.26	1.31
146	1,243	40,552	*loss* 6,532	3,912	42,060	*loss* 44,680	2,585	217.79	7.28	8.68	*loss* 1.40
261	—	6,316	2,351	13	932	1,432	—	83.50	8.92	6.50	2.42
2	—	6,022	*loss* 333	7	—	*loss* 326	—	105.72	7.61	8.05	*loss* .44
736	—	36,856	10,403	—	5,020	5,383	*loss* 11,339	88.61	9.78	7.63	2.15
390	—	19,593	4,303	4,381	3,545	5,139	590	81.83	14.23	11.67	2.56
1,462	2,400	26,302	597	7,674	8,369	*loss* 98	2,095	100.28	6.57	6.43	.14
—	—	13,132	8,232	—	2,473	5,759	—	73.04	9.26	5.69	3.57
26,865	**6,994**	**703,118**	**147,707**	**36,515**	**85,490**	**98,732**	**17,951**	**88.87**	**8.55**	**7.06**	**1.49**
4,804	—	67,022	27,948	115,417	103,587	39,778	10,337	81.09	14.12	9.89	4.23
2,048	—	7,537	2,240	8,492	8,150	2,582	690	85.87	15.23	11.74	3.49
125	—	8,674	536	—	250	286	—	96.89	25.23	23.76	1.47
317	151	2,507	*loss* 386	—	10	*loss* 396	—	118.67	1.30	1.54	*loss* .24
446	—	12,604	1,674	—	—	1,674	703	88.27	10.24	9.04	1.20
321	—	4,213	*loss* 52	—	—	*loss* 52	67	101.22	2.22	2.25	*loss* .03
1,395	—	28,112	3,525	—	—	3,525	2,319	88.86	11.00	9.77	1.23
—	—	50	443	—	—	443	—	1.00	32.87	3.34	29.53
506	496	5,891	*loss* 1,711	2,594	392	491	210	92.75	3.31	4.66	*loss* 1.35
355	—	8,872	*loss* 168	—	—	*loss* 168	—	101.93	3.83	3.90	*loss* .07
2,168	—	6,838	5,482	25,445	24,581	6,346	182	83.20	9.53	5.29	4.24
—	—	9,314	*loss* 2,602	—	—	*loss* 2,602	—	1.91	1.91	2.64	*loss* .73
12,485	**647**	**161,634**	**36,929**	**151,948**	**136,970**	**51,907**	**14,508**	**85.19**	**8.26**	**6.72**	**1.54**

(c) Revenue Account.—*Continued.*

Name of Co. / Item	Profit disposed					
	Reserves	Bonus	Dividend		Others	Carried forward to next account
			Amount	Percentage		
Horse Tramways:—	*yen*	*yen*	*yen*	%	*yen*	*yen*
Akita Kido	300	300	2,400	old 6.0 / new 5.0	—	—
Fuji-Minobu	—	—	—	—	2,336	—
Miharu Basha	169	335	1,710	5.0	—	508
Hakodate Suiden	—	—	—	—	21,795	—
Kanaishi Basha	800	380	2,250	1st term 12.0 / 2nd term 13.0	—	116
Mitono Basha	—	—	—	—	435	22
Gotemba Basha	100	150	1,120	8.0	200	256
Kakuda Basha	200	100	—	—	—	466
Joto Basha	325	329	2,600	pref. 10.0 / ordi. 8.0	—	125
Tsuru Basha	—	—	—	—	2,500	221
Akiba Basha	1,800	600	5,200	8.0	—	190
Gyoda Basha	1,165	—	787	8.7	—	759
Furukawa Basha	—	—	—	—	1,915	—
Iruma Basha	—	—	—	—	—	3,492
Chubu Basha	—	—	—	—	—	*loss* 867
Fuji Basha	1,270	880	7,700	1st term 10.0 / 2nd term 12.0	—	768
Nanchiku Kido	600	232	4,500	1st term 10.0 / 2nd term 8.0	—	309
Saga Kido	130	—	1,000	5.0	2,556	891
Shokin Basha	180	100	3,200	8.0	—	67
Yutoku Kido	1,190	—	9,648	6.0	2,060	14,335
Iwaki Tanko	—	—	—	—	2,606	—
Kamikawa Basha	—	—	—	—	—	1,222
Kokura Kido	500	215	4,400	1st term 18.0 / 2nd term 26.0	—	136
Yamanashi Keiben	758	1,000	2,500	12.5	—	483
Waka Keiben	380	400	6,200	10.0	—	464
Akai Kido	900	800	6,375	15.0	—	557
Azumashokai	—	—	—	—	1,554	—
Tsuyazaki Kido	255	—	1,124	2nd term 5.0	—	864
Nakoso Kido	598	100	2,500	,, 10.0	2,500	200
Fuji Kido	400	—	—	—	—	947
Sapporo Shigai	—	—	—	—	—	*loss* 42,095
Yamashiro Kido	—	—	—	—	—	1,432
Awazu Kido	—	—	—	—	—	*loss* 326
Tone Kido	—	—	—	—	—	*loss* 5,956
Sapporo Kido	700	300	3,500	7.0	200	1,029
Azuma Kido	115	100	1,500	2nd term 3.3	100	182
Nippon Iwo	360	—	4,800	—	—	599
Total	**13,195**	**6,321**	**75,014**	—	**40,757**	**18,604**
Rikisha (man-drawn) Tramways:—						
Utsunomiya Sekizai	6,000	6,000	27,734	—	—	10,381
Shimada Kido	400	150	1,900	1st term 10.0 / 2nd term 8.7	—	822
Otome Jari	—	136	—	—	—	150
Iwafune Jinsha	—	—	—	—	—	*loss* 396
Noda Jinsha	350	380	1,125	2nd term 5.0	—	522
Kitsuregawa Jinsha	—	—	—	—	—	15
Nabeyama Jinsha	782	390	2,750	5.0	1,000	922
Ebetsu Jinsha (communal management)	—	—	—	—	443	—
Nasu Jinsha	50	30	375	3.0	—	246
Tokatsu Jinsha	—	—	—	—	—	*loss* 168
Nakaizumi Kido	600	300	2,948	1st term 5.0	—	2,680
Chiba (prefectural management)	—	—	—	—	—	*loss* 2,602
Total	**8,182**	**7,386**	**36,832**	—	**1,443**	**12,572**

HORSE AND RIKISHA TRAMWAYS.—*Continued.*

(d) Accidents and Casualties.

Item / Name of Co.	Accidents to Operation					Casualties by Accidents							
						Killed				Injured			
	Collided	Derailed	Obstruction by human agency	Others	Total	Passengers	Servants	Passers-by	Total	Passengers	Servants	Passers-by	Total
Horse Tramways:—													
Hakodate Suiden...	5	5	—	—	10	—	—	—	—	1	—	2	3
Joto Basha	—	7	—	—	7	—	—	—	—	—	—	—	—
Akiba Basha	—	1	—	—	1	—	—	—	—	—	—	—	—
Fuji Basha	—	11	—	—	11	—	—	—	—	—	—	—	—
Tsuyazaki Kido	—	5	—	—	5	—	—	—	—	—	—	—	—
Tone Kido	—	—	—	—	—	—	—	—	—	—	1	2	3
Azuma Kido...	1	1	—	39	41	—	—	—	—	3	1	3	7
Nippon Iwo	1	—	—	—	1	—	—	—	—	4	2	—	6
Total	**7**	**30**	—	**39**	**76**	—	—	—	—	**8**	**4**	**7**	**19**
Rikisha (man-drawn) Tramways:—													
Kitsuregawa Jinsha	1	—	—	—	1	—	—	—	—	3	—	—	3
Nabeyama Jinsha	—	—	—	—	—	—	—	1	1	—	—	—	—
Nasu Jinsha	2	—	—	—	2	—	—	—	—	—	—	2	2
Total	**3**	—	—	—	**3**	—	—	**1**	**1**	**3**	—	**2**	**5**

HORSE AND RIKISHA TRAMWAYS.—*Continued.*

(e) Directorate and Staff.

Item / Name of Co.	Directors		Staff		Total	
	No.	Monthly salary and wages	No.	Monthly salary and wages	No.	Monthly salary and wages
Horse Tramways:—		*yen*		*yen*		*yen*
Akita Kido	4	70	12	116	16	186
Fuji-Minobu	—	—	29	379	29	379
Miharu Basha	5	16	33	394	38	410
Hakodate Suiden	—	—	132	2,171	132	2,171
Kanaishi Basha	5	—	15	216	20	216
Mitono Basha	8	10	19	203	27	213
Gotemba Basha	8	31	10	145	18	176
Kakuda Basha	5	27	19	177	24	204
Joto Basha	8	40	18	221	26	261
Tsuru Basha	7	9	20	217	27	226
Akiba Basha	3	5	29	241	32	436
Gyoda Basha	8	—	21	303	29	303
Kyushu Dento	—	—	25	325	25	325
Iruma Basha	5	—	20	244	25	244
Chubu Kido	7	—	15	141	22	141
Fuji Basha	10	42	38	540	48	582
Nanchiku Kido	7	48	32	429	39	477
Saga Kido	7	38	31	400	38	438
Shokin Basha	6	—	21	255	27	255
Yutoku Kido	10	72	92	962	102	1,034
Iwaki Tanko	—	—	6	46	6	46
Kamikawa Basha	5	—	52	812	57	812
Kokura Kido	3	45	15	312	18	357
Yamanashi Keiben	6	75	56	688	62	763
Waka Keiben	6	—	10	143	16	143
Akai Kido	5	129	11	204	16	333
Azumashokai	—	—	4	28	4	28
Tsuyazaki Kido	7	5	21	190	28	195
Nakoso Kido	5	35	47	128	52	163
Fuji Kido	8	—	17	315	25	315
Sapporo Shigai	5	121	116	1,765	121	1,886
Yamashiro Kido	10	8	10	150	20	158
Awazu Kido	9	—	9	108	18	108
Tone Kido	9	65	72	805	81	870
Sapporo Kido	6	75	13	209	19	284
Azuma Kido	9	12	42	562	51	574
Nippon Iwo	—	—	36	496	36	496
Total	**206**	**978**	**1,168**	**15,140**	**1,374**	**16,118**
Rikisha (man-drawn) Tramways:—						
Utsunomiya Sekizai	13	174	198	3,117	211	3,291
Shimada Kido	8	68	16	281	24	349
Otome Jari	—	—	22	307	22	307
Iwafune Jinsha	6	—	10	125	16	125
Noda Jinsha	5	15	53	170	58	185
Kitsuregawa Jinsha	6	9	36	485	42	494
Nabeyama Jinsha	5	—	62	729	67	729
Ebetsu Jinsha (communal management)	—	—	—	—	—	—
Nasu Jinsha	7	43	22	269	29	312
Tokatsu Jinsha	8	—	36	574	44	574
Nakaizumi Kido	9	58	43	574	52	632
Chiba (prefectural management)	—	—	29	405	29	405
Total	**67**	**367**	**527**	**7,036**	**594**	**7,403**



New Tokyo Station



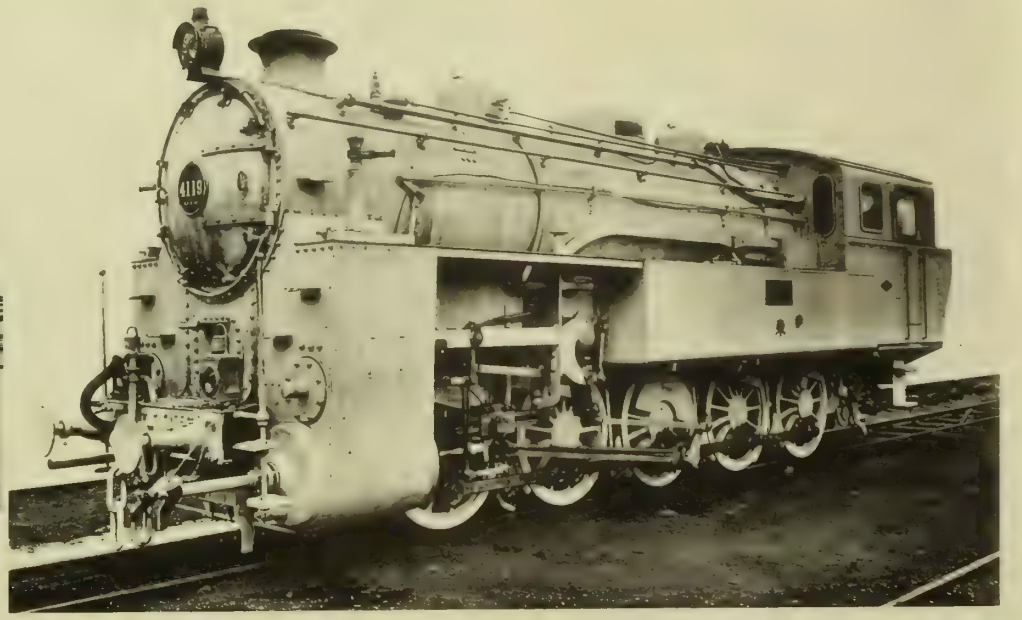
No. 2 Bridge over the River Tenryu, Tokaido Line



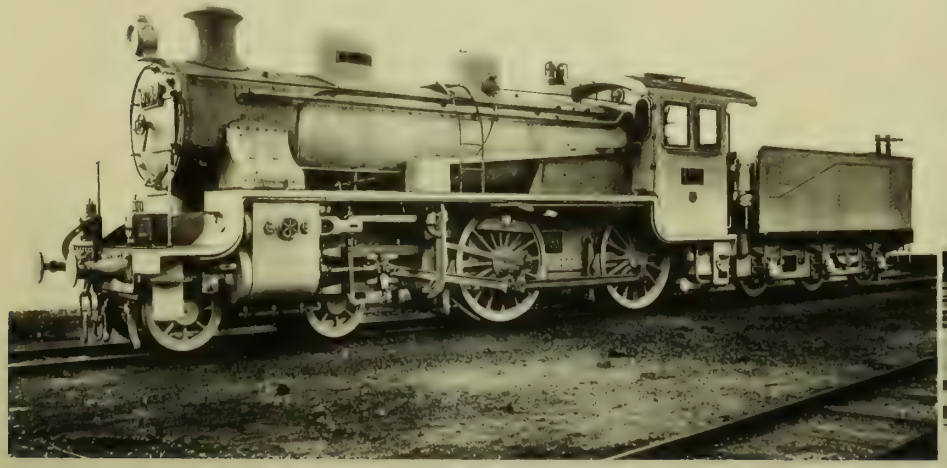
Temiya Coaling Pier, Hokkaido



2–8–0 Tender with Superheater



0–10–0—4110 type Tank with Superheater



4–4–0—6760 type Tender



2–6–0—8920 type with superheater



Third Class and Brake Van



Electric Tram Line,
Tokyo Station



Electric Tram Line,
Omori-Kamata, Tokaido Line



Observation Parlour—Exterior View



First Class Sleeping Car



Observation Parlour-Interior View,
Tokyo-Shimonoseki Train de luxe



24-ton Bogie Coal Hopper



13-ton 4-wheel Coal Hopper



25-ton Bogie Timber Truck



12-ton 4-wheel Wagon



Snow-Plough

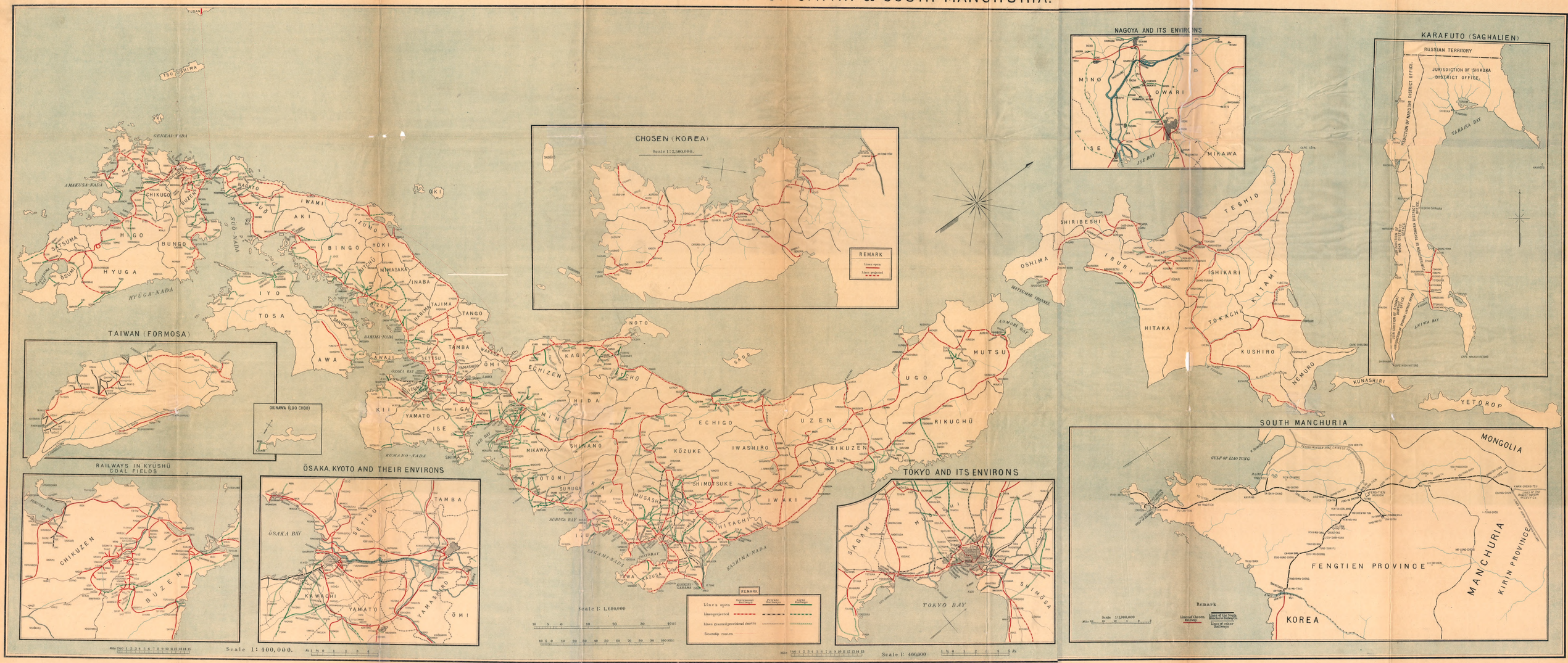

GULF OF LIAO TUNG
R. TAIYOKA
R. LIAO
YING-KOU
NEW-CH-WANG
PEKING-MUKDEN LINE, CHINESE GOVERNMENT RAILWAYS
HSIN-MIN-FN
HAI-CHENG
TA-SHIH-CHIAO
KAI-PING
TANG-KANG-TZU
LIAO-YANG
CHANG-TAI-TZU
YEN-TAI
YEN-TAI COALMINE
SU-CHIA-TUN
HUN HO
FENG-TIEN
FENG-TIEN (MUKDEN)
FENG-SU JUNCTION
FU-AN
HSIN-TAI-ZU
TIEH-LING
KAI-YUAN
CHANG-TU
SZU-PING-CHIEH
SHIH-CHIAO-TZU
YAO-CHIEN-HU-TUN
PEN-HSI-HU
CHIEN-CHIN-CHAI
FU-SHUN
LOA-KU-TAI
YANG-PAO-PAU
FU-CHIN
CHIAO-TAU
HSIA-MA-TANG
LIEN-SHAN-KUAN
TSAO-HO-KOU
TUNG-YUAN-PU
CHI-KUAN-SHAN
CHIU-MU-CHUANG
FENG-HUNG-CHENG
TA-KU-SHAN
HAI-LUNG-CHENG
LIU-HO-CHEN
FENGTIEN, PROV.

GENERAL RAILWAY MAP OF JAPAN & SOUTH MANCHURIA.




KOZUKE
SHIMOTSUKE
MUSASHI
SAGAMI
KAZUSA
AWA

GENERAL RAILWAY MAP OF JAPAN & SOUTH MANCHURIA.


TSU-SHIMA
GENKAI-NADA
AMAKUSA-NADA
HYUGA-NADA
SUO-NADA
HARIMA-NADA
OSAKA BAY
ISE BAY
SURUGA BAY
SAGAMI-NADA
KASHIMA-NADA
KUMANO-NADA
AOMORI BAY
MATSUMAE CHANNEL
TOKYO BAY
OKI
SADO
NOTO
IZU
HIZEN
CHIKUGO
BUZEN
BUNGO
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CAPE SÖYA
CAPE SHIRETOKO
CAPE NOSHAPPU
CAPE NOSAKKUPU
CAPE SHIRETOKO
CAPE NOSHIRO
CAPE INUBOSAKI
CAPE SHIONOMISAKI
CAPE MAKKARIKOMI
CAPE ERIMO
CAPE TOMARI
CAPE ASHIZURI
CAPE OMAESAKI
CAPE IRÖZAKI
CAPE SHIONOMISAKI
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